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PERSONAL.

Mr. J. J. Sammons, City Engineer, of Sistersville, W. Va., has resigned.

Mr. Frank T. Oakley has been appointed Engineer of the Bridge Commission of Toledo, O.

Mr. W. J. Taylor and Mr. Walter Gaston, of the Taylor Iron & Steel Co., are traveling in Europe.

Mr. William Birdsell has accepted a position as Civil Engineer in the Government service in Cuba.

Mr. Guy Hyde Chick has been appointed manager of the Contra Costa Water Co., of Oakland, Cal.

Mr. Edward S. Gallagher has accepted a position with the Boston Elevated Ry. Co. as Electrical Engineer.

Mr. Ralph Rollins Rumery has been engaged as Civil Engineer on the construction of a railway in Porto Rico.

Mr. Edward A. Hopkins has been elected President of the Sloss-Sheffield Steel & Iron Co., of Birmingham, Ala.

Messrs. E. L. Bailey and Harlow Goble, of Dundee, N. Y., have formed a copartnership as constructing engineers.

Mr. L. L. Buck, Chief Engineer of the new East River Bridge, New York city, has lately returned from a visit to England.

Mr. Wilbur J. Watson, of the Osborn Engineering Co., of Cleveland, O., was married on Aug. 14 to Miss Harriet Barnes, of that city.

Mr. William T. Johnson has been appointed to superintend the reconstruction of the water-works reservoir at Grand Rapids, Mich.

Mr. F. W. Andros, Assoc. Mem. Am. Soc. C. E., has been appointed Chief Engineer of the Ferrocarril de Chihuahua al Pacifico, with headquarters at Chihuahua, Mexico.

Mr. C. E. P. Smith, formerly Instructor in Civil Engineering at the University of Vermont, has accepted a position with the Bridge Department of the New York Central R. R.

Major C. A. F. Flagler, in charge of the United States Engineers' Office at Montgomery, Ala., has been transferred to Porto Rico. He will be succeeded by Captain W. V. Judson.

Mr. A. Mathieson, Traffic Inspector of Railways of Victoria, Australia, has been sent by his government to England and America to study the subject of grain handling in bulk.

Mr. John Marsden Ward is visiting America as the agent of the Shah of Persia for the purpose of placing orders for locomotives to be used on the new railway between Teheran and the Persian Gulf.

Professor O. P. Stout and Professor A. B. Crane of the University of Nebraska are making surveys for the United States Government on the tributaries of the Big Sioux River to ascertain the feasibility of water storage in that region.

General N. Koutoynikoff and Mr. Constantin Tennyson, Naval Constructor, of the Russian Navy, who have been in America in connection with the building of the warships "Variag" and "Retrisan," have recently sailed for Europe.

Mr. Geo. S. Pierson, M. Am. Soc. C. E., of Kalamazoo, Mich., has been employed to design the proposed sewage disposal plant for the city of Marshalltown, Ia. Professor A. Marston, of Iowa State College, has been engaged as Consulting Engineer.

Mr. A. S. Harris, Superintendent of the Motive Power and Car Department of the New Zealand Government Railways, is visiting various car-building shops in America preparatory to placing orders for a number of passenger and freight cars.

Professor H. B. Shaw and Mr. T. J. Rodhouse, of the Electrical Engineering Department, and Professor Luther M. Defoe, of the Mathematical Department of the University of Missouri, are investigating the suitability for power purposes of the rivers of Southwestern Missouri.

OBITUARY

Mr. M. P. White, Civil Engineer, died on Aug. 11 at Houston, Tex.

Mr. William Henry Wood, a Civil Engineer of Lanoka, N. J., died June 20, at Merida, Yucatan, where he was in charge of a surveying party.

Mr. Charles Henry Howe, a Civil Engineer, died at his home in Portland, Me., on Aug. 17.

Mr. George W. Pike, a Civil Engineer, died at his home in South Killingly, Conn., Aug. 18.

Mr. Patrick W. Ford, Architect, died at his home at Jamaica Plain, Mass., on Aug. 18.

Mr. Robert W. Bruce, a Mechanical Engineer, recently died of consumption at Pittsburg, Pa. Mr. Bruce was a graduate of Rensselaer Polytechnic Institute.

Mr. Charles B. Talbot, a Civil Engineer of the Northern Pacific Ry., died at Tacoma, Wash., Aug. 8. Mr. Talbot has been in the service of the Northern Pacific Ry. for more than 30 years.

Professor Dascom Greene died at Troy, N. Y., on Aug. 6. Prof. Greene was until 1892 Professor of Mathematics and Astronomy at the Rensselaer Polytechnic Institute, of which school he was also a graduate. He was a member of the American Association for the Advancement of Science.

Mr. L. L. Eppinger, of the firm of Eppinger & Russell, lumber and creosote dealers, of New York city, died Aug. 13, on the steamship "Comanche" while on the way from Charleston, S. C., to New York. Mr. Eppinger was 30 years old. He was a graduate of Stevens' Institute of Technology.

ENGINEERING SOCIETIES.

COMING GENERAL MEETINGS.

INTERNATIONAL ACETYLENE ASSOCIATION.
Aug. 28 to 30. Annual meeting at Chicago, Ill. Secy., J. B. Carroll, 84 Market St., Chicago, Ill.

AMERICAN SOCIETY OF MUNICIPAL IMPROVEMENTS.
Aug. 28 to 31. Annual meeting at Milwaukee, Wis. Secy., D. L. Fulton, Allegheny, Pa.

NATIONAL ASSOCIATION OF GERMAN-AMERICAN TECHNOLOGISTS.
Sept. 1 to 5. 16th annual convention at Baltimore, Md. Secy., John Malberg, Baltimore, Md.

ASSOCIATION OF EDISON ILLUMINATING COMPANIES.
Sept. 4. Annual meeting at Saratoga Springs, N. Y. Secy., Wilson S. Howell, Newark, N. J.

CENTRAL STATES WATER-WORKS ASSOCIATION.
Sept. 4 to 6. Annual meeting at Columbus, O. Secy., John Fisher, P. O. Box 203, Hamilton, O.

IRON AND STEEL INSTITUTE OF GREAT BRITAIN.
Sept. 10. At Paris, France. Secy., Bennet H. Brough, 28 Victoria St., London, S. W., England.

STREET RAILWAY ASSOCIATION OF THE STATE OF NEW YORK.
Sept. 11 and 12. Fall meeting at Buffalo, N. Y. Secy., Henry A. Robinson, 621 Broadway, New York city.

AMERICAN BOILER MANUFACTURERS' ASSOCIATION.
Sept 18 to 20. Annual meeting at Cincinnati, O. Secy., J. D. Farasey, Cleveland, O.

EASTERN MAINTENANCE OF WAY ASSOCIATION.
Sept. 19 to 21. Annual meeting at Saratoga Springs, N. Y. Secy., F. C. Stowell, Ware, Mass.

NATIONAL ASSOCIATION OF MUNICIPAL ELECTRICIANS.
Sept. 25 to 27. Annual meeting at Pittsburg, Pa. Secy., Secy., Geo. H. F. Cottel, City Electrician, Boston, Mass.

PENNSYLVANIA STREET RAILWAY ASSOCIATION.
Oct. 10 and 11. Annual meeting at Reading, Pa. Secy., S. P. Light, Lebanon, Pa.

AMERICAN INTERNATIONAL ASSOCIATION OF RAILROAD SUPERINTENDENTS OF BRIDGES AND BUILDINGS.
Oct. 16. Annual meeting at St. Louis, Mo. Secy., S. F. Patterson, Concord, N. H.

AMERICAN STREET RAILWAY ASSOCIATION.
Oct. 16 to 19. Annual meeting at Kansas City, Mo. Secy., T. C. Pennington, 2020 State St., Chicago, Ill.

AMERICAN GAS LIGHT ASSOCIATION.
Oct. 17 to 19. Annual meeting at Denver, Colo. Secy., Alfred E. Forstall, 58 William St., New York city.

AMERICAN RAILWAY ASSOCIATION.
Oct. 24. Annual meeting at Boston, Mass. Secy., W. F. Allen, 24 Park Place, New York city.

INTERNATIONAL ASSOCIATION FOR TESTING MATERIALS.
Oct. 25 to 27. Annual meeting of American section at New York city. Secy., Richard L. Humphrey, City Hall, Philadelphia, Pa.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS.—The committee to nominate officers for the coming year, of which Mr. Henry R. Towne is chairman, have issued a circular to the members asking suggestions and recommendations to aid them in their work.

INTERNATIONAL ASSOCIATION OF MUNICIPAL ELECTRICIANS.—The fifth annual convention will be held at Pittsburg, Pa., Sept. 25 to 27, when papers on the following subjects will be read and discussed: "Benefits to be Derived from Our Association," by Wm. Brophy; "Contact Points," by Frank C. Mason; "Trials and Troubles of Instituting and Employing Municipal Inspection and Control," by M. G. Canfield; "Automatic Fire Alarm Systems," by Charles Burger; "Advantages and Disadvantages of Carrying High and Low Potential Conductors Upon the Same Poles." Trips will be made to various points of interest.

INTERNATIONAL ACETYLENE ASSOCIATION.—The postponed regular meeting will be held in Chicago Aug. 28 to 30, 1900. There will be regular sessions from 9:30 to 12, and 1:30 to 3:30 p. m., each day, in the Assembly Room of the John Crerar Library. The following short papers are expected: "The Probable Value to the Industry of Comprehensive Acetylene Exhibitions," Raphael Herman; "Conservative Humanity, with Passing Notice of the Insurance Fraternity," F. Cortez Wilson; "Points Upon the Use of Chemical Purifiers with Acetylene Apparatus," Theo. Kautney; "The Relation of This Association to the 'Acetylene Gas Journal,'" Elias A. Long; "Special Applications of Acetylene Light," Eugene Bournonville; "Protection for the Public Against Unauthorized Use of Trade Mark Names on Generators," A. J. Galbraith. The following subjects are also suggested for discussion: (1) "What About the Price of Carbide;" (2) "The Gasoline Lamp and Acetylene;" (3) "Should Carbide Distribution be More General." Geo. Landis Wilson, Pres.
J. B. Carroll, Secy.

ASSOCIATION OF RAILWAY SUPERINTENDENTS OF BRIDGES AND BUILDINGS.—The tenth annual convention will be held at St. Louis, Mo., Oct. 16 to 18, when the following committee reports and papers will be read: "Necessary and Kind of Tools for the Equipment of a Gang of Bridgemen," W. J. Danes; "Best Snow Fence, Stationary or Portable," W. E. Smith; "Best Method of Erecting Track Scales, Suspended or Under Track," H. D. Cleaveland; "Is Concrete the Most Suitable and Economical Material for Bridge Piers and Abutments and Railway Culverts and Arches?" W. A. Rogers; "Hand vs. Air-Riveting Power Used: Actual Cost Compared with Hand Work in the Field for the Erection of New Work and Repairing; also Drilling for Reinforcing Old Spans," A. B. Manning; "Most Practical and Cheapest Bumper for Yard Terminals," B. F. Pickering; "Are Tie Plates on Bridge Ties a Benefit or a Detriment?" C. A. Lichty; "The Education of Railroad Men for Subordinate Positions of Responsibility, More Especially with Reference to Employes of the Bridge and Building Departments of Railroads," Walter G. Berg, Chief Engineer Lehigh Valley Railroad; "The Superintendent of Bridges and Buildings, His Duties and Responsibilities," Onward Bates, Engineer and Superintendent Bridges and Buildings, Chicago, Milwaukee & St. Paul R. R. The following subjects will be discussed: "What is the Most Economical Method of Painting Railway Bridges and Buildings, and Best Material to Use?" "Life of Different Kinds of Timber in Bridges of Various Kinds, and Advisability of Protecting Same from the Weather;" "The Best Method of Constructing and Maintaining Highway and Farm Crossings;" "Best Practical Sanitary Arrangement for Local Stations where there are No Water or Sewer Systems;" "Best and Most Economical Plant for Pumping Water for Water Stations;" "Necessary and Kind of Tools for the Proper Equipment of a Gang of Bridge Men;" "Best Snow Fence, Stationary and Portable;" "Prevention of Fire in Railroad Buildings;" "What Repairs Can Safely be Made to Metal and Wood Spans Without the Use of False Work."

NEW PUBLICATIONS.

BUREAU OF LABOR STATISTICS OF CONNECTICUT.—Report for 1898-9. H. E. Back, Commissioner, Hartford, Conn. Cloth; 6 x 9 ins.; pp. 266; tables.

THE TRANSMISSION OF TYPHOID BY SEWAGE POLLUTED OYSTERS.—By Kenneth Allen, C. E., Baltimore, Md. Reprinted from Vol. XXV., Trans. Am. Public Health Assoc. Paper; 6 x 9 ins.; pp. 12.

This is an interesting review of the subject named in the title, including accounts of several outbreaks of typhoid supposed to be due to the cause indicated.

OHIO SOCIETY OF SURVEYORS AND CIVIL ENGINEERS.—Report for 1900. F. J. Cellarius, Secretary, Dayton, O. Paper; 6 x 9 ins.; pp. 100; illustrated. 50 cts.

This report contains a number of papers, reports and discussions on roads, pavements, sewers, water supply and other engineering topics; also a list of members.

FALLACIES IN GOOD ROAD ECONOMICS.—By Ira O. Baker, Professor of Civil Engineering, University of Illinois, Champaign, Ill. Reprinted from "The Technograph," Vol. XIV. Paper; 6 x 9 ins.; pp. 19.

Professor Baker has done the cause of good roads a real service by exposing in a clear and interesting manner some of the fallacies in the arguments of their promoters, as he does in these few pages.

THE WEALTH AND PROGRESS OF NEW SOUTH WALES, 1898-9.—By T. A. Coghlan, Statistician, Sydney, N. S. W.: Pub. doc. Boards; 6 x 9 ins.; pp. 1,048; tables.

This year book contains much useful information relating to the country, people and industries of New South Wales, presented in remarkably good form. There is a brief section on local government and municipal works.

STATE SEWERAGE COMMISSION OF NEW JERSEY.—Report for 1899. Wm. T. Hunt, Chairman. Paper; 6 x 9 ins.; pp. 149. Address the Commission, Fuller Building, Jersey City.

An abstract of the body of this report was published in our issue of Jan. 11, 1900. An appendix contains the returns made to the commission, relating to the sewerage systems of the various municipalities of the state, as required by law.

THE NATIONAL MUNICIPAL LEAGUE.—Proceedings of the Columbus Meeting, Nov. 16-18, 1899. Clinton Rogers Woodruff, Editor, Philadelphia: The National Municipal League. Cloth; 6 x 9 ins.; pp. 280. $1.

Much of the matter in this volume is also given in "The Municipal Program," reviewed in our issue of Aug. 2, 1900. In addition, this volume contains a number of papers presented at the meeting and all the discussion on the papers and the program.

THE RAILWAYS IN INDIA.—Administration Report for 1899-1900.—By F. R. Upcott, Secretary to the Government of India, Simla, India. Pub. doc.; paper; 4to.; pp. 287; map and diagrams.

This is a statistical report of the year ending March 31, 1900, and shows that India has now about 26,800 miles of railway, the net earnings on which were 5.34% on the capital. Particulars are given of the construction work done and surveys made by the various railways, and there are voluminous tables of the finances, equipment, etc., of these railways.

A MEASURING TANK FOR A JET METER.—By Chas. Victor Seastone, Assistant in Theoretical and Applied Mechanics, University of Illinois, Urbana, Ill. Reprinted from "The Technograph," Vol. XIV. Paper; 6 x 9 ins.; pp. 7; illustrations and tables.

The tank in question had three compartments and "a short wrought-iron vertical discharge pipe and a glass tube for measuring the velocity head." It is described in detail and various facts regarding its use and relating to the jet meter are presented in the paper.

PROVINCIAL INSTRUCTOR IN ROADMAKING, ONTARIO.—Report for 1899. A. W. Campbell, Instructor, Toronto, Ont. Paper; 6 x 10 ins.; pp. 48; illustrated.

The general question of road reform and the more specific ones of the relations of towns and cities to country roads and the advantages of county road systems are discussed in this report. There is also some practical information on road building and a collection of reports from townships on the subject of road improvement.

TRADE PUBLICATIONS.

(The standard sizes for pamphlets and trade catalogues recommended by all the principal engineering societies of the United States are: 3½x6 ins., 6x9 ins., and 9x12 ins.)

INJECTORS AND EJECTORS.—Sherwood Mfg. Co., Buffalo, N. Y. Paper; 6 x 9 ins.; pp. 32; illustrated.

The above company manufactures injectors and ejectors of various types, to be operated by steam or water pressure.

FIRE APPARATUS.—Waterous Engine Works Co., St. Paul, Minn. Paper; 10½ x 7 ins.; pp. 44; illustrated.

The above company manufactures gasoline and steam fire-engines, hook and ladder trucks and other fire department supplies.

BEARING METALS.—Empire Metal Co., Syracuse, N.Y. Paper; 6 x 3¼ ins.; pp. 12; illustrated.

This pamphlet describes several bearing metals designed specially for high-speed engines, electrical equipment, rolling mill machinery, etc.

CABLE-WAYS.—Carson-French Machine Co., Boston, Mass. Paper; 6 x 9 ins.; pp. 53; illustrated.

This catalogue describes and discusses the merits of the Carson-Lidgerwood cable-way for excavating and refilling all kinds of trenches.

FORMING LATHES.—Meriden Machine Tool Co., 106 Britannia St., Meriden, Conn. Paper; 6 x 3½ ins.; pp. 16; illustrated.

This pamphlet calls attention to the forming lathes manufactured by the above company.

WALL HYDRANTS AND SILL COCKS.—James B. Clow & Sons, Chicago, Ill. Circular; 6¼ x 9½ ins.

These devices are intended specially for sprinkling lawns, etc., being more convenient and less troublesome than street washers and yard hydrants.

GAS ENGINES.—Witte Iron Works Co., Kansas City, Mo. Paper; 9 x 6 ins.; pp. 32; illustrated.

The gas engines here described are of the standard four-cycle single-cylinder type, ranging in size from one to 50 HP. Tables of dimensions are given.

INTERMITTENT FLUSH TANKS.—Pacific Flush Tank Co., 84 La Salle St., Chicago Ill. Paper; 6 x 10 ins.; illustrated.

The various styles of flush tanks made by this company are described herein, with the aid of illustrations.

ELECTRICAL APPARATUS.—Fort Wayne Electric Works, Fort Wayne, Ind. Paper; 4½ x 6½ ins.; pp. 73; illustrated.

This is a list of the companies operating "Wood" electrical apparatus. The size of the plant is given in each case.

COMPRESSED AIR HOUSE-CLEANING.—General Compressed Air House-Cleaning Co., St. Louis, Mo. Paper; 5 x 7 ins.; pp. 12; illustrated.

This pamphlet treats of methods of removing dust from carpets and walls by the use of compressed air. For cleaning carpets, etc., the nozzle is enclosed in a dust collector.

RAIL JOINT.—Williams Track Joint Co., 1002 Monadnock Block, Chicago, Ill. Paper, 3½ x 6¼ ins.; pp. 4; illustrated.

In the Williams' joint, one angle bar has the bolt holes threaded, the bolts being screwed through and secured by nuts in the usual way. The device is in experimental use on several roads.

ELECTRIC VEHICLES.—Electric Vehicle Co., 100 Broadway, New York city. Paper; 7 x 9 ins.; pp. 32; illustrated.

This is an illustrated catalogue of the "Columbia" automobiles, manufactured by the above company. Each type is represented by a half-tone engraving accompanied by a brief description.

HOISTING MACHINERY.—John F. Byers Machine Co., Ravenna, Ohio. Leather; 8½ x 10 ins.; pp. 84; illustrated.

This is a beautifully printed and bound catalogue of portable and semi-portable steam hoisting engines, geared locomotives, derrick cars, derrick irons, blocks and sheaves for contractors and quarrymen.

HOISTING MACHINERY.—Fraser & Chalmers, Chicago, Ill. Paper; 6 x 9 ins.; pp. 120; illustrated.

This is catalogue No. 2 of the above company treating of hoisting engines and appliances. It contains much valuable information on this subject. It advises the use of a "tail rope" in very deep mines, as by its use the same engines can be used for any depth of mine.

OILLESS BEARINGS.—North American Metaline Co., West Ave. and Third St., New York city. Paper; 5 x 7½ ins.; pp. 24; illustrated.

Metaline is a material formed of metals, oxides of metals and organic matter, reduced to powder, compounded with wax, gums, or fatty matters, and subjected to heavy pressure, so as to form solids of proper shape to form boxes and bearings for shafts and axles. For shafts larger than ¾-in. the metaline is inserted as plugs into flat-bottomed holes drilled into the bearing surface. These holes overlap or break joint. The use of this material is said to give excellent results in loose pulleys, shaft hangers, etc.

POWER STATION CONSTRUCTION.—Arnold Electric Power Station Co., Marquette Bldg., Chicago, Ill. Paper; 9 x 12 ins.; pp. 20; illustrated.

This pamphlet contains an address delivered before the Chicago Electrical Association, Jan. 19, 1900, by Bion J. Arnold, describing the Arnold system of electric power station construction.

BELT CONVEYORS.—Robins Conveying Belt Co., New York city. Paper; 6 x 9 ins.; pp. 16; illustrated.

The Robins conveyor consists of a rubber band carried on idle pulleys, arranged in such a way that the upper side of the belt forms a trough in which the material to be transported is placed. These conveyors are used for moving crushed stone, ore, coal, materials from excavations, etc.

COFFEE MACHINERY.—Salem Iron Works, Salem, N. C. Paper; 6 x 9 ins.; pp. 48; illustrated.

Machines for pulping, washing, drying, hulling and cleaning, polishing and grading coffee are manufactured by the above company. The descriptions of the same in this catalogue are accompanied with much information concerning the handling of coffee. The catalogue is well illustrated and contains price lists.

SURVEYING AND MATHEMATICAL INSTRUMENTS.—John Davis & Son, 26 Victoria St., London, England. (American branch, 140 West Fayette St., Baltimore, Md.) Paper, 8½ x 11 ins.; pp. 28; illustrated.

This is the first American edition of this firm's catalogue and price list, showing theodolites, the tacheometer, dumpy levels, dials, etc. The instruments are mainly those intended for mining work, and safety lamps are also included. Drawing instruments and scales are shown.

ENGINE STOP AND SPEED LIMIT.—Monarch Manufacturing Co., Waterbury, Conn. Paper; 8½ x 5½ ins.; pp. 40; illustrated.

The engine stop here described is an electrically actuated device, attached to the throttle valve, enabling the engineman to control the engine from any convenient point. It may also be operated by the speed limit, a device belted to the crank-shaft, which closes the circuit whenever the speed passes a determined limit, as in case of an accident to the governor.

SCHOOL OF PRACTICAL AGRICULTURE AND HORTICULTURE.—New York Central R. R. (Passenger Department), New York City. Paper, 4 x 8 ins.; pp. 8; illustrated.

This school is situated near Briarcliff Manor on the Putnam Division of the New York Central R. R. Its object is to give general instruction in the subjects covered, and specially to intensify the value of the small farm under intensive culture. President, Theodore L. Van Norden; Secretary, Francis W. Holbrook.

SUPPLIES FOR WATER AND GAS WORKS, RAILROADS, CONTRACTORS, PLUMBERS, STEAM AND GAS FITTERS.—Jas. B. Clow & Sons, 222 Lake St., Chicago, Ill. Cloth; 10 x 12 ins.; pp. 552; illustrated.

One seldom sees such a large, complete, well-arranged, handsomely made and thoroughly indexed trade catalogue as this one. The matter presented is classified by departments and covers very fully the range of goods indicated by the title. The separate products of the company are clearly described by text and illustration and prices are quoted.

DYNAMOS AND ENGINES.—Ridgway Dynamo & Engine Co., Ridgway, Pa. Paper; 10 x 8 ins.; pp. 104; illustrated.

The Thompson-Ryan continuous-current dynamo is provided with series coils, the function of which is to produce a commutating field of the proper strength and position to correspond with the load on the machine, producing perfect compounding and avoiding the necessity of shifting the brushes. The above company also manufacture the McEwen automatic engine, which is well described in the present catalogue.

STEEL BRIDGES AND STRUCTURAL WORK.—Wabash Bridge & Iron Works, Wabash, Ind. Paper; 6 x 3½ ins.; pp 92; illustrated.

This pamphlet describes and illustrates the plant of this firm, and also a number of the structures erected by it. These include large and small highway bridges of various designs, from 10 to 400-ft. span, the latter being somewhat unusually long for highway bridges. There are also several public buildings, including the court house at Rensselaer, Ind., and the Soldiers' Memorial Hall at Wabash, Ind.

GENERAL ELECTRIC CATALOGUES.—General Electric Co., Schenectady, N. Y. Paper; 8 x 10½ ins.

Bulletin No. 4,220 describes automatic circuit breakers for 125 and 250-volt direct-current circuits.

Bulletin No. 4,221, the G. E.-54 25-HP. railway motor.

Bulletin No. 4,226, continuous current railway switchboards.

Bulletin No. 4,227, direct-current iron-clad stationary motors.

GAS ENGINES.—National Meter Co., 84 Chambers St., New York city. Paper; 9 x 6 ins.; pp. 40; illustrated.

The "Nash" gas engines are manufactured both for the two cycle and the four cycle systems. The one or more cylinders are placed vertically. For direct coupling to generators a friction clutch coupling is provided, which prevents the fluctuations in speed of the engine from greatly affecting the generator. The engines are built in sizes ranging from one to 300 HP.

CONSTRUCTION NEWS.

CONDENSED LIST OF CONTRACTS PENDING WITH DATE OF OPENING BIDS.

Bids to be opened.	Work.	Place.	See Eng. News.
Aug. 23.	Bridge,	Buckingham, Va.	Aug. 2
Aug. 23.	Lock, etc.,	Charleston, S. C.	July 26
Aug. 23.	School building,	Toronto, Ont.	Aug. 23
Aug. 24.	Sea wall,	West Point, N. Y.	July 26
Aug. 24.	Constructing canal,	Ottawa, Ont.	Aug. 2
Aug. 25.	Canal,	Port Huron, Mich.	Aug. 9
	Advertised, Eng. News, Aug. 9 and 16.		
Aug. 25.	Mill buildings,	Arlington, N. J.	Aug. 16
	Advertised, Eng. News, Aug. 16.		
Aug. 25.	Pipe sewers,	Rockford, Ill.	Aug. 16
	Advertised, Eng. News, Aug. 16.		
Aug. 25.	Paving,	Greensboro, Ala.	Aug. 16
Aug. 27.	Repairing asphalt paving,	Dayton, O.	Aug. 9
Aug. 27.	Sewer system,	Whitesboro, N. Y.	Aug. 9
	Advertised, Engineering News, Aug. 9.		
Aug. 27.	Paving,	Lafayette, Ind.	Aug. 9
Aug. 27.	Sewer conduit,	Chicago, Ill.	Aug. 9
	Advertised, Eng. News, Aug. 9 and 16.		
Aug. 27.	Electrical machinery,	Toledo, O.	Aug. 9
Aug. 27.	Dredging,	Astoria, Ore.	Aug. 2
	Advertised, Eng. News, Aug. 2 to 23.		
Aug. 27.	Cement walks,	Wabash, Ind.	Aug. 2
Aug. 27.	Sewers,	Port Clinton, O.	Aug. 2
Aug. 27.	Ice plant, etc.,	Phoenix, Ariz.	Aug. 16
Aug. 27.	Electric plant,	Thorntown, Ind.	Aug. 16
Aug. 27.	Sewers,	Coatsville, Pa.	Aug. 16
	Advertised, Eng. News, Aug. 16.		
Aug. 27.	Hook and ladder truck,	Jersey City, N. J.	Aug. 16
Aug. 27.	Garbage crematory,	Orange, N. J.	Aug. 16
Aug. 27.	Sidewalks,	Kingsville, Ont.	Aug. 23
Aug. 27.	Levee work,	Tallulah, La.	Aug. 23
Aug. 27.	Garbage crematory,	Orange, N. J.	Aug. 23
Aug. 27.	Brick paving,	Oshkosh, Wis.	Aug. 23
Aug. 27.	Buildings,	Washington, D. C.	Aug. 23
Aug. 27.	Telephone system,	Johnstown, Pa.	Aug. 23
Aug. 28.	Church building,	Selma, Ala.	Aug. 23
Aug. 28.	Steel highway bridge,	Urbana, Ill.	Aug. 23
Aug. 28.	Naval supplies,	Washington, D.C.	Aug. 23
Aug. 28.	Electrical machinery,	New York, N. Y.	Aug. 23
Aug. 28.	Paving,	New York, N. Y.	Aug. 16
Aug. 28.	Asphalt plant,	Detroit, Mich.	Aug. 2
Aug. 29.	Hospital building,	Shoshone Agency, Wyo.	Aug. 2
Aug. 29.	Officers' quarters,	San Francisco, Cal.	Aug. 9
Aug. 29.	Sewer,	Cleveland, O.	Aug. 9
Aug. 29.	Pipe sewers,	Alliance, O.	Aug. 9
Aug. 29.	Sewers,	Paterson, N. J.	Aug. 16
Aug. 29.	Electric plant,	St. Mary's, Ont.	Aug. 16
Aug. 29.	Sewers,	New York, N. Y.	Aug. 23
Aug. 29.	Stone paving,	New Haven, Conn.	Aug. 23
Aug. 29.	Macadam roads, etc.,	Danville, Ill.	Aug. 23
Aug. 29.	Cleaning ditches,	Marion, O.	Aug. 23
Aug. 29.	Sewer,	Middletown, O.	Aug. 23
Aug. 29.	Filling, etc.,	Danville, Ill.	Aug. 23
Aug. 30.	Brick paving,	Lima, O.	Aug. 23
Aug. 30.	Bridge,	Silverton, Wash.	Aug. 23
Aug. 30.	Levee work,	Memphis, Tenn.	Aug. 23
Aug. 30.	Reservoir, water pipe, etc.,	Algonquin, Ill.	Aug. 23
Aug. 30.	Pumping machinery,	Washington, D. C.	Aug. 23
Aug. 30.	Water-works,	Southern Pines, N. C.	Aug. 16
	Advertised, Eng. News, Aug. 16 and 23.		
Aug. 30.	Paving,	Janesville, Wis.	Aug. 16
Aug. 30.	Water-works,	Morrilton, Ark.	Aug. 16
	Advertised, Eng. News, Aug. 16 and 23.		
Aug. 30.	Electric plant, etc.,	Stephen, Minn.	Aug. 16
Aug. 30.	Pumping plant, etc.,	Stephen, Minn.	Aug. 16
Aug. 30.	Scow,	Snohemish, Wash.	Aug. 9
Aug. 30.	Asphalt paving,	Lima, O.	Aug. 9
Aug. 30.	Guard house,	Washington, D. C.	Aug. 9
Aug. 30.	Altering heating plant,	Topeka, Kan.	Aug. 2
Aug. 30.	Trestle,	Snohomish, Wash.	Aug. 9
Aug. 30.	Artesian well,	Clayton, Ala.	Aug. 2
	Advertised, Eng. News, Aug. 2 and 9.		
Aug. 31.	Filling,	Fort Caswell, N. C.	Aug. 2
	Advertised, Eng. News, Aug. 2 to 23.		
Aug. 31.	Electric lighting,	Pensacola, Fla.	Aug. 2
Aug. 31.	Paving,	Lima, O.	Aug. 9
Aug. 31.	Boilers,	New London, Conn.	Aug. 16
Aug. 31.	Sea wall,	National Soldiers' Home, Va.	Aug. 16
Aug. 31.	Police station,	Cleveland, O.	Aug. 16
Aug. 31.	Paving,	Cleveland, O.	Aug. 16
Aug. 31.	Water-works,	Lancaster, N. Y.	Aug. 23
Aug. 31.	Eliminating grade-crossing,	Erie R. R.	Aug. 23
	Advertised, Eng. News, Aug. 23 and 30.		
Aug. 31.	Bridge work,	Larina, Mont.	Aug. 23
Aug. 31.	Wharf,	Hull, Que.	Aug. 23
Aug. 31.	Brick paving,	Galesburg, Ill.	Aug. 23
Sept. 1.	Gas well,	Medicine Hat, N.W. Ter.	Aug. 23
Sept. 1.	Church building,	Hollandale, Mass.	Aug. 23
Sept. 1.	Steel frame for building,	Washington, D.C.	Aug. 23
Sept. 1.	School house,	Washington, D. C.	Aug. 23
Sept. 1.	Brick paving,	North Adams, Mass.	Aug. 23
	Advertised, Engineering News, Aug. 23.		
Sept. 1.	Masonic temple,	South Boston, Va.	Aug. 23
Sept. 1.	Levees, etc.,	New Orleans, La.	Aug. 23
Sept. 1.	Improvement bonds,	Cohoes, N. Y.	Aug. 23
Sept. 1.	Electric plant bonds,	Kirkwood, Mo.	Aug. 16
Sept. 1.	Street bonds ($10,000),	Greensboro, Ala.	Aug. 16
Sept. 1.	Surveying road,	Manchester, N. H.	Aug. 16
Sept. 1.	Asylum building,	Austin, Tex.	Aug. 16
Sept. 1.	Conduit,	Washington, D. C.	Aug. 16
Sept. 1.	Officers' quarters,	West Point, N. Y.	Aug. 9
	Advertised, Eng. News, Aug. 9 to 23.		
Sept. 1.	Electric plant,	Alliance, O.	Aug. 9
Sept. 1.	Pumping engine, etc.,	Indianapolis, Ind.	July 12
Sept. 3.	Paving,	San Antonio, Tex.	Aug. 2
Sept. 3.	Paving,	West Shoals, Ind.	Aug. 2
Sept. 3.	Paving,	Sandusky, O.	Aug. 9
Sept. 3.	Brick paving,	Toledo, O.	Aug. 9
Sept. 3.	Sewer bonds ($50,000),	Mansfield, O.	Aug. 16
Sept. 3.	Artesian well,	Sanborn, Minn.	Aug. 23
Sept. 3.	Sewers,	Shelby, O.	Aug. 23
Sept. 3.	Improving street,	Millersburg, O.	Aug. 23
Sept. 3.	Brick paving,	Wauseon, O.	Aug. 23
Sept. 3.	Paving,	San Antonio, Tex.	Aug. 23
Sept. 3.	Gravel road (7½ miles),	Columbus, Ind.	Aug. 23
Sept. 3.	Gravel road,	Friarpoint, Miss.	Aug. 23
Sept. 3.	Jail building,	Hamilton, Mont.	Aug. 23
No date.	Water mains,	East Bangor, Pa.	Aug. 23

RAILWAYS.

ALGOMA CENTRAL.—This company has acquired the charter of the Hudson Bay & Sault Ste. Marie Ry. The charter gives the company the right to construct a road from Missanabi to Moose Factory, on Hudson Bay, and carries with it a subsidy of $500,000 and 1,250,000 acres of land along the proposed route. The length of this division is about 250 miles. The road will be an extension of the Algoma Central Railway, and work will begin as soon as the main line to Missanabi is completed. Mineral lands will be tapped by the new line. Foley Bros. & Co., of St. Paul, have the contract for building 100 miles of this road from Sault Ste. Marie to the Canadian Pacific Ry. The contract includes two bridges and a large dock. F. H. Clerque, Pres., Sault Ste. Marie, Ont.

ARKANSAS & MISSOURI.—This company has been incorporated as successors to the Arkansas Northern Ry. The new charter calls for a road from Little Rock in the direction of Springfield, Mo., passing through Pulaski, Faulkner, Cleburne, Van Buren, Stone and other counties to the northern line of Boone county, Mo., about 212 miles. Subscriptions for stock are now being taken. W. B. Worthen, Pres.; Oscar Davis, Secy.; T. L. Cox, Treas., all of Little Rock, Ark.

AUGUSTA TERMINAL.—The right of way along the river front of Augusta, Ga., for this road's extension has been secured, according to local reports.

BALTIMORE & OHIO.—Surveys for a line from Zedikar's Station, Washington county, Pa., to a point near Wylandville, are being made. Engineering data are also being secured, it is said, in line with a project to construct a tunnel from the west end of Malden St., Washington borough, through under Bellevue and coming out near the present West Washington Station. J. M. Graham, Ch. Engr., Baltimore, Md.

BIRMINGHAM, SELMA & NEW ORLEANS.—This company has been enjoined by the Southern R. Co. from building a crossing at Bear Creek for its extension from Martin Station to Thomaston, Ala. Work has been under way for some time, King & Bohanum having the contract. The matter of the injunction will come up for a hearing Aug. 27.

BRADLEY.—G. W. Leniger, of Knapp, Wis., and E. E. Elliot, of Hillsdale, Mich., are reported to have begun the construction of a portion of this line from Tomahawk to Bloomville, Wis., and east.

BRITISH COLUMBIA.—Money for Mackenzie and Manns railway, from the Great Lakes to the Pacific Ocean, with a branch to Dawson, has been subscribed in London, according to reports. It is not known whether the Manitoba & Lake Superior R. R. Co. noted as incorporated, with a capital of $10,000,000, in our last issue, is interested in this project.

BUFFALO & SUSQUEHANNA.—We are informed that the report is correct that work has commenced on a new 6-mile branch from Mapes to Jones Corners, N. Y., for this road. It is likely that a further extension will be made to Ceres, N. Y., where connection will be made with the Shawmut road. H. Herden, Ch. Engr., Galeton, Pa.

CAPE BRETON.—The government has granted the necessary concessions for this line. When completed this road will run from Hawkesbury across the Strait of Canso to Louisburg, N. S., 100 miles, with a branch to Sydney, N. S. Ultimately this road will, it is said, make a link in the contemplated Atlantic-Pacific Ry., together with the Canada Atlantic, the Great Northern of Canada, and other lines which are now already built or in process of construction. From the terminal at Louisburg it is intended to run steamships to Liverpool. The distance between these two cities is less than between New York and Liverpool. The Louisburg harbor is the only one to remain open all the year. The country abounds with iron and copper ores, coal and other minerals, and from the development of these resources, as also from the products of agriculture, the company expects to make its earnings. Another class of profitable freight will be salmon and other fish, as well as lobsters, and to foster this industry cold storage warehouses will be built. The cost of the road proper will probably exceed $3,000,000, while the bridge across the straits will cost $5,000,000 more. This bridge will be built of steel and will be about three-quarters of a mile long. Its construction will be difficult, as there is a strong current running through the straits. The road will be single track, with 70-lbs. steel rails. Construction will be commenced as soon as the final survey is completed, which will probably be within six weeks. The contract for the construction of the road has been let to the Manhattan Contracting Co., 39 East 42d St., New York. The road has been very liberally subsidized. Besides receiving concessions for a free right of way, the government has granted subsidies of $3,200 per mile. The remainder of the cost of construction will be provided by an issue of bonds. The road is capitalized at $1,000,000. Robt. J. Campbell, Pres., 38 Park Row, New York; Edmund Guerin, Q. C., Counsel, Montreal, Que.

CENTRAL OF GEORGIA.—John M. Egan, Pres., Savannah, Ga., writes us that a preliminary survey is under way from Arlington, Ga., to Dawson, and when completed the board of directors will decide whether it is advisable to build the line or not.

CENTRAL ONTARIO.—John D. Evans, Ch. Engr., Trenton, Ont., writes us that subsidies for this line from Bancroft via Maynooth to Whitney, Ont., 40 miles, have been granted by the Provincial and Federal Governments. The route so far has only been explored. It has not been decided when contracts will be let. Stevenson Burke, Pres., Cleveland, O.

CRANDON.—This company has been incorporated in Wisconsin with a capital of $50,000, to build a line 16 miles long from Crandon. H. F. Landeck, Milwaukee; M. D. Keith and J. T. Honle, New London, Wis., are incorporators.

DAVENPORT, ROCK ISLAND & NORTHWESTERN.—This company has decided to build this year from Davenport to Galesburg and later to Peoria. The Clinton, Dubuque & Northwestern, an allied corporation, is surveying a line northwest to some point on the Illinois Central, where the Chicago Great Western is reached. The Minneapolis & St. Louis is to supply a gap between Albert Lea and Lyle.

DETROIT & TOLEDO SHORE LINE.—Local papers state that arrangements are being made for early resuming construction work on this line. Work was suspended several months ago after 17 miles of road had been graded and five miles of rails laid, at a cost of about $200,000. W. B. Strang, Jr., is the contractor. H. M. Little, of New York, is interested.

DULUTH, ST. CLOUD, GLENCOE & MANKATO.—Surveys for the line for this company have been completed between Glencoe and St. Cloud, Minn. If the right of way is mostly secured by Sept. 1 contracts for 23 miles of work will be let at once.

EAST ST. LOUIS, MADISON & GRANITE CITY.—This company has been incorporated with a capital of $50,000, to build a line from Granite City to East St. Louis, Ill. Incorporators, Thos. W. Scott, Fairfield, Ill.; Edward C. Kramer, East St. Louis; Alex. P. Humphrey, Louisville, Ky., and Wilbur M. Warnock, Edwardville, Ill.

FORT WAYNE & BUTLER.—Surveys are being made for a branch of this line to the towns on the St. Joe River, according to reports in Fort Wayne, Ind., papers.

GRAND TRUNK.—This company has decided to build coal pockets at Portland, Me., and to lay new tracks. The pockets will have a capacity of 20,000 tons. Other important improvements at Portland and elsewhere are proposed. C. M. Hays, Gen. Mgr., Montreal, Que.

LAKE ERIE & DETROIT RIVER.—We are informed that this company has decided to construct this season that portion of the proposed extension between Ridgetown and Dutton, Ont., 24 miles. Owen McKay, Ch. Engr., Walkerville, Ont.

HOCKING VALLEY.—It is stated that the extension to this line from Wellston to Huntington, W. Va., will be built in the spring. Estimates for the work are now being made. F. B. Sheldon, Ch. Engr., Columbus, O.

HARTWELL.—D. C. Alford, Hartwell, Ga., informs us that the citizens of Hartwell are trying to have this line standard gaged by the Southern, of which it is a branch. A route is now in prospect from Greenville, S. C., to Athens, Ga., to pass through Hartwell, a distance of 80 miles. The Seaboard Air Line is also interested in this scheme.

INDIANAPOLIS SOUTHERN.—Surveys for this line are being rushed so that work may be commenced as soon as possible. C. E. Barret, Secy.; J. E. McGettigan, Vice-Pres. and Gen. Mgr., Indianapolis, Ind.

KEWAUNEE, GREEN BAY & WESTERN.—It is stated that this company may build a new line to Lake Michigan to connect with the road at Kewaunee, Wis. J. A. Jordan, Gen. Mgr., Green Bay; S. S. Palmer, Pres., 40 Wall St., New York.

KNOXVILLE & AUGUSTA.—Oliver & Co., Birmingham, Ala., have been awarded the contract, at about $100,000, for building a ten-mile extension to the Maryville branch of this road. W. P. Hood, Supt., Knoxville, Tenn.

LANSING & NORTHERN.—This company has been incorporated with a capital of $60,000, to build a line from Lansing to DeWitt, St. Johns, Alama, St. Louis. The line is identical with that of the Lansing, St. Johns & St. Louis Ry., recently incorporated with a capital of $5,000,000. The L. & N. is incorporated under the tramway act, so that the company can condemn property for right of way. J. E. Mills, Fred. C. Norris and E. L. Percival, of Port Huron, Mich., are the incorporators.

LONG ISLAND.—W. F. Porter, Gen. Supt., Long Island City, N. Y., is quoted as stating that the changing of the terminal facilities at Jamaica, L. I., will involve an expenditure of about $200,000. The work will not be started until a decision is reached regarding the East River tunnel and the Atlantic Ave. improvement, and work is actually begun on them. It is stated that the company is prepared to bid on the construction of the tunnel, providing the route selected by the New York Rapid Transit Commission is the one from Manhattan to the junction of Flatbush and Atlantic Aves., at the company's terminal station, Long Island City.

LYNN CANAL SHORE LINE.—P. W. Snyder, Box 21, Skagway, informs us that the preliminary surveys for this line from Skagway to Dyea, Alaska, 4½ miles, are complete. The stock has been subscribed and the company is now ready to let the contract. About 2,600 ft. of the trestle work is complete, and is ready for the rails. J. H. Diers, Ch. Engr., Skagway, Alaska.

MANCHESTER & ONEIDA.—Reports state that this company will let the contract for constructing its road from Manchester to Oneida, Ia., to a company composed of Jos. Hutchinson, M. F. LeRoy, A. A. Morse and others, of Manchester, Ia. A meeting will be held Aug. 25 to complete the arrangements for the work.

MICHIGAN.—Money and franchises for the proposed railway from Detroit to Saginaw, Mich., 150 miles, have been secured. It is proposed to use the existing line between Detroit and Pontiac and then to continue the road through Dayton Plains, Waterford, Hollis, Fenton, Flint, etc., to Saginaw. It is proposed to begin work at once and complete the road in a year. Congressman Samuel W. Smith, Pontiac, Mich., is interested.

MIDDLE TENNESSEE & ALABAMA.—Reports state that work may soon be renewed on this line so that it may be completed in North Alabama and to New Decatur, Ala.

NEW YORK, SUSQUEHANNA & WESTERN.—Bids are asked by Chas. W. Burchholz, Ch. Engr. Erie R. R., 21 Cortlandt St., New York, until Aug. 21 for the excavation, grading, masonry, metal work, etc., necessary for eliminating the grading crossings of this line and the Erie R. R. at Genung St., Middletown, N. Y., as stated in our advertising columns.

NORFOLK, PORTSMOUTH & NEWPORT NEWS RY. & FERRY CO.—Right of way is being secured by this company for the Pig's Point Ry., Newport News, Va. J. T. J. Wool, Mgr., Norfolk, Va.

NORFOLK & WESTERN.—Henry Fink, Pres., is reported as stating that extensive improvements are to be made to the company's system this year. The Lynchburg & Durham, the Winston & Salem, and the Clinch Valley branches in particular will receive attention. Considerable trestle on the lines will be replaced by new bridges and fills. C. S. Churchill, Engr. M. W., Roanoke, Va.

OHIO VALLEY.—This company, of Huntington, W. Va., has been incorporated in Kentucky with a capital of $1,000,000, to build a line from Huntington to Ironton, O., through the coal regions of Kentucky.

OREGON MIDLAND.—John Hale, Portland, Ore., is reported to have been awarded the contract for building a branch of this line to Klamath Falls, Ore., about 83 miles; estimated cost, $2,250,000. J. A. McCall, Ch. Engr., Portland. (See Eng. News Aug. 16.)

OREGON R. R. & NAVIGATION CO.—N. D. Miller, contractor, St. Paul, Minn., has received a contract for the improvements and betterments of the company's main line from mile post 66, east of Hood River, Oregon, to mile post 77, near tunnel No. 3. The work will include the removal of several hundred thousand yards of rock and earth, a new tunnel, and the straightening and ballasting, with new bridges and trestles. It is stated that the work will require 1,500 men for about two years.

OSWAYO.—This company has been incorporated to build a line five miles long, between Ceres, McKean county, and Shingle House, Potter County, Pa. Work will probably begin this season. We are informed that the average grade from Ceres to the summit of the Allegheny Mountains by way of Honeoye Valley is less than 7 ft. to the mile, the maximum being 26 ft. W. F. Copp, Pres.; H. S. Hastings, Secy. and Treas., both of St. Marys', Pa.

PENNSYLVANIA R. R.—Bids are reported as wanted at once by W. H. Brown, Ch. Engr., Philadelphia, for constructing 3½ miles of second track on the South Fork R. R., between South Fork and Lovett, Pa.

PEORIA, DECATUR & MATTOON.—This company has been incorporated with a capital of $4,500,000, to build a line from Peoria through Tazewell, Logan and Moultrie counties to Mattoon, Ill., and also to purchase the Peoria division of the Peoria, Decatur and Evansville road, recently sold by decree of the Federal Circuit Court for the foreclosure of mortgage. The incorporators and first board of directors are. J. E. Maas, Charles A. Wolff, James G. Wakefield, James K. Calhoun and Thomas H. Avery, of Chicago.

PORTLAND RY. & TERMINAL CO.—Fred. J. Illsley has completed surveys for this company's improvements along the shore at South Portland, Me., to include warehouses, wharves 700 ft. long and connecting railway spurs. About 12 acres will be used by the company. Estimated cost of work, $500,000. A dry-dock may also be built. Address Jesse Dyer, Portland, Me.

PITTSBURG & LAKE ERIE.—This company has secured the right of way for its branch from New Haven to Dunbar, seven miles, and on to the coke fields near Uniontown, Pa. Later an extension may be built into West Virginia. The first work may be begun this fall.

ST. JOHNS & LAKE EUSTIS.—This company has filed a mortgage of $500,000 with the Metropolitan Trust Co., of New York, the proceeds of which will be used to improve the line which extends for 100 miles up the St. Johns River from Astor, Fla.

ST. PAUL, MINNEAPOLIS & MANITOBA.—The following resolution has been filed in the secretary of state's office, at Olympia, Wash., by this company: "Resolved, that this company will construct, maintain and operate a branch line of railway, beginning at a connection with its main line of railway, at or near Wenatchee, and running thence northerly and easterly, in the counties of Okanogan and Stevens, to a connection with the railway proposed to be built by the Washington Improvement and Development Co., at or near the confluence of the San Poil River with the so-called west fork of the stream; the said branch line having a length of about 170 miles."

SEATTLE & INTERNATIONAL.—This company has decided to build a single track branch line from a point near Arlington, Snohomish county, Wash., along the Stillaguamish River and valley to Darrington, about 32 miles. C. S. Mellen, Pres.; Geo. H. Earl, Secy., Seattle, Wash.

SPLIT ROCK & NORTHERN.—This company has been incorporated with a capital of $20,000, to build a line from the mouth of Split Rock River, Lake county, Minn., to the Canadian boundary. The company will also develop mining properties. Incorporators: Wm. Gratwick, Pres., a lumber merchant of Buffalo, N. Y.; Clark W. King, Vice-Pres., Saginaw, Mich.; I. D. Merrill, Gen. Mgr. and Secy.

TACOMA EASTERN.—This company, of Tacoma, Wash., is reported to have filed a mortgage for $200,000 with the Title Guarantee & Trust Co. of Portland, Ore., the proceeds of which will be used for extending and equipping 30 miles of line, work on which is now under way.

TENNESSEE CENTRAL.—H. V. B. Smith, Secy. to Pres., Nashville, Tenn., informs us that the branch has been located from Johnson Stand on the Monterey division to the Campbell Coal Co.'s mine, now being developed, about nine miles distant. The right of way has been obtained and the construction capital secured. The extension will probably be built under the existing contract with Naugle, Holcomb & Co., contractors, 355 Dearborn St., Chicago, Ill., who are the general contractors for this company. Jere. Baxter, Pres., Nashville; Geo. T. Bigelow, Ch. Engr., Crossville.

TERRE HAUTE & WABASH VALLEY.—This company has been incorporated with a capital of $300,000, to build from Terre Haute to Clinton and Rockville, Ind., about 75 miles. A. M. Higgins, Jas. R. Kendall, B. C. Hudnut and Henry G. Miller are directors.

STREET AND ELECTRIC RAILWAYS.

PELHAM, MASS.—The Hudson, Pelham & Salem Electric Ry. Co. is considering the question of extending its lines into New Hampshire. Work on an extension at Haverhill and Lawrence has been begun. The legislature will be asked to grant an extension to the charter, which expires next April. C. H. Burke, Pres.; Kimball Webster, Vice-Pres.; Geo. C. Jackman, Treas.

BRISTOL, CONN.—The Bristol & Plainville Tramway Co. is reported to have voted to extend the line to Terryville, provided that the town eliminate the grading crossing. Work will probably be begun in the spring.

SCHENECTADY, N. Y.—The Albany & Schenectady Traction Co. has been incorporated with a capital of $100,000, to build an electric road nine miles long. Incorporators, Chas. Pfizer, Jr., 81 Maiden Lane, New York; Edward P. Williams, 351 Broadway, Albany, N. Y., and Wm. H. Bockes, Saratoga Springs, N. Y.

SIDNEY, N. Y.—The Susquehanna Valley Electric Co. has been incorporated with a capital of $200,000, to build a line between Sidney and Franklin. Incorporators, Henry B. Oakham, Cecil C. Higgins and Edwin H. Tucker, 220 Broadway, all of New York.

SYRACUSE, N. Y.—The work of double-tracking of the Syracuse, Lakeside & Balwinsville R. R. to Long Branch will begin at once; estimated cost, $50,000. H. S. Newton, Gen. Mgr.

TRENTON, N. J.—Reports state that the N. J. & Philadelphia St. Ry. Co. has purchased the Upper Delaware bridge at Trenton for $200,000, and will now continue its line to Philadelphia. The right of way is all secured and the construction, it is stated, will soon begin. J. B. Shaw & Co. and E. H. Gay & Co., both banking firms of Boston, are interested.

ALLEGHENY, PA.—It is stated that the Nunnery Hill St. Ry. Co. proposes to extend its lines to lower Allegheny, Manchester and Woods Run. A bridge 700 ft. long and costing $100,000 will be built for the line at Dunlap Ave. over East St. Francis J. Torrance, Pres. Select Council, and Congressman W. H. Graham are interested.

ASHLAND, PA.—The Ashland, Locust Dale & Centralia Electric Ry. Co., it is reported, will soon make arrangements for the construction of its line. Dallas Sanders, Pres., Philadelphia.——The Shamokin & Edgewood Electric Ry. Co. will soon make application for a charter for a line.

PITTSBURG, PA.—It is reported that grading will begin on the proposed Aspinwall and Tarentum electric line about Sept. 1. The Braeburn & Freeport St. Ry. Co., which is largely interested, will have, when this line is completed, a road 28 miles long.

POTTSVILLE, PA.—Local papers state that arrangements are being made to construct the first section, about 13 miles, of the proposed electric road to connect Giberton with Pottsville. The entire line when completed will be about 150 miles long, which includes certain combinations of old lines. Surveys and estimates for other sections are being made. The Shenandoah & Pottsville St. Ry. Co. and Maj. J. F. Finney, U. S. Sub-Treas., Philadelphia, are interested.

ELKTON, MD.—Work on the Cherry Hill, Elkton & Chesapeake City Ry. will begin Sept. 1, according to reports. The capital, $860,000, is said to have already been subscribed. John M. Kennedy, Pres., Philadelphia; Capt. Ambrose Higgins, Secy. and Treas., Philadelphia.

FREDERICK, MD.—C. C. Waters, Secy. Washington, Gettysburg & Frederick Ry. Co., Frederick, writes us that the road, to be 70 miles long, will be built at once. The executive committee has authority to proceed as rapidly as possible with the construction. L. Victor Baughman, Pres., Frederick.

BOWLING GREEN, O.—J. E. Shatzel, Mayor, writes us that Capt. L. Black, of this city, and others are organizing a company to build an electric road between Fremont and Napoleon, via Bowling Green.

PONTIAC, MICH.—Reports state that work will soon begin on the proposed electric road to Bay City, via Clarkson, Flint and Saginaw. Jos. Sawyer is interested.

WABASH, IND.—Jas. Lynn, Pres. Kokomo, Wabash & Lake Manitou R. R., Wabash, writes us that surveys have been made and right of way obtained for the proposed electric road between Kokomo, Greentown, Wabash, Akron and Rochester, Ind., about 71½ miles. The capital has not yet all been secured and no contracts have been let.

ELGIN, ILL.—The council has agreed to grant a 50-year franchise to the Elgin & Chicago Ry. Co. for its line in this city.

KENOSHA, WIS.—The Kenosha St. Ry. Co. has been incorporated with a capital of $25,000 by G. R. McDowell, Fred. J. Gottfredsen and J. M. Kehlor. Work on the line, it is stated, will be started at once. W. L. Arnold, Gen. Mgr.

MANITOWOC, WIS.—Ex-Mayor Thos. Higgins, of Neenah, Wis., has asked that a 50-year franchise for an electric line in this place be granted to him. The proposed line is to extend to Two Rivers.

DULUTH, MINN.—The consolidation of the electric roads of Duluth and Superior has been made, and the company operating the lines will be known as the Duluth-Superior Traction Co. It is said that a number of improvements will be made at a cost of about $500,000. Thos. Lowry, of the Minneapolis railways, and C. G. Goodrich, Vice-Pres. Twin City Rapid Transit Co., Minneapolis, are interested.

CHEYENNE, WYO.—Money for carrying on the construction of the proposed electric line has been obtained, and plans are being made, according to reports. Senator F. E. Warren, of this city, is interested.

BUTTE CITY, MONT.—The question of extending the street railway is being considered. F. W. Blackford, Ch. Engr.

ST. LOUIS, MO.—The Labor Union St. Ry. Co. has been incorporated with a capital stock of $5,000 to build a street railway. Thos. B. Edwards, Pres.; Wm. D. Benson, Secy.; J. A. Roof, Treas.

FORT WORTH, TEX.—The preliminary survey for the electric road between Fort Worth and Dallas has been completed by Capt. Hand. It is stated that arrangements for the construction will soon be made.

SYDNEY, N. S.—It is stated that the Cape Breton Tramway & Electric Co. will build new lines in this place and to the near-by towns. It is also proposed to build to Glace Bay, Sydney Mines and North Sydney. The capital of the company is $500,000.

ELECTRIC LIGHT AND POWER.

NEW LONDON, CONN.—Bids are asked until Sept. 6 for delivering one 50-K-W. generator set and accessories. Maj. Smith S. Leach, U. S. Engr.

NEW YORK, N. Y.—Bids are asked until August 28 for furnishing at the navy yard one generating set, electrical supplies, switchboard, lamps, wire, etc. A. S. Kenny, Paymaster Gen., U. S. N., Washington, D. C.

SPENCER, N. Y.—The municipal plant is said to have been recently destroyed by fire.

FAIRVIEW, N. J.—Bids are asked, according to reports, by Mayor Ayres until Sept. 5 for lighting the streets of this city.

SHAMOKIN, PA.—It is stated that the Shamokin & Edgewater Light, Heat & Power Co. has applied to the council for a franchise. Address ex-Congressman M. H. Kulp.

EDGEFIELD, S. C.—Press reports state that the Twin City Power Co., recently incorporated with a capital of $1,500,000, proposes to develop the power at Ring Jaw Shoals, in the Savannah River, to the extent of about 12,000 HP. W. H. Chew, 11 Wall St., and Sam'l Taylor, both of New York, and D. M. Mackeye, New Rochelle, N. Y., are interested.

WRIGHTSVILLE, GA.—At the special election the people of this city voted in favor of the proposed issue of $15,000 in bonds for erecting a plant.

NATCHITOCHES, LA.—The contract for erecting the electric plant and water-works is said to have been let by the council to Owen Ford, Security Bldg., St. Louis, Mo.

FAYETTEVILLE, TENN.—R. D. Warren, J. H. Rees, C. B. Bayley and others, are said to have purchased 23 acres of land on the Elk River, in order to develop the water power. A dam, canal and power house will be erected, and it is expected that about 3,000 HP. will be developed.

COVINGTON, KY.—W. E. Gunn writes us that at the November election the question of issuing $75,000 in bonds for erecting a plant will be voted on.

MONROE, IND.—The board of trustees is said to have decided to erect a plant and water-works, to cost about $18,000.

RICHMOND, IND.—The council has, according to reports, engaged James Nelson, Baldwin Block, Indianapolis, to prepare plans and specifications for the proposed municipal plant.

ALGONAC, MICH.—The council is said to have let the contract for erecting the proposed plant to Arbuckle, Ryan & Co. at $12,225. The contract for the water-works was let to T. C. Brook & Co.

GALESBURG, ILL.—The council is said to have let the contract for erecting the proposed municipal plant, to cost about $40,000, to L. E. Myers, of Chicago, Ill.

TWO RIVERS, WIS.—Press reports state that the council has cancelled the contract, recently made with C. A. Iglehart, of Chicago, Ill., for erecting the proposed electric plant and water-works. New bids will be asked for at once.

COFFEYVILLE, KAN.—The question of issuing $20,000 in bonds for erecting a plant will be voted on Sept. 4, according to reports.

FORT SCOTT, KAN.—The council is said to have decided to erect a plant and water-works to cost about $175,000. The question of issuing bonds will probably be voted on shortly.

NORTH PLATTE, NEB.—It is stated that W. V. R. Whitall intends to apply to the council for a franchise to erect a plant.

WEST PLAINS, MO.—C. E. Crabb, Cy. Engr., writes us that this city has voted to issue $27,500 in bonds for erecting a plant and water-works.

FT. WORTH, TEX.—It is stated that S. P. Rainey has purchased the plant of the Standard Light & Power Co. for $21,500.

LEADVILLE, COLO.—John J. Hill, 410 Jackson Block, Denver, writes us that plans for the proposed new plant here are well under way, but that contracts will not be let until next spring, as it has been determined to double the storage capacity of the reservoir. The plant will be located on Homestake Creek in Eagle county, and will develop about 15,000 HP. to be transmitted 18 miles.

SPOKANE, WASH.—Press reports state that the Washington Water Power Co. will increase its capital in order to purchase the property of the Amsterdamsch Trustees Kantnor for $3,000,000. H. M. Richards, Pres., J. B. Fisher, Supt.

LOS ANGELES, CAL.—Bids are asked until Sept. 5 for a franchise to operate a plant in Los Angeles county. C. W. Bell, County Clk.

SANTA MONICA, CAL.—The contract for furnishing light and power to the National Soldiers' Home is said to have been let to the United Electric, Gas & Power Co.

WEISER, IDAHO.—It is stated that the board of trade is circulating a petition for a special election to vote on the question of issuing $50,000 in bonds for erecting a plant and water-works.

BRIDGES.

DARTMOUTH, MASS.—The selectmen have been petitioned to call a special town meeting to consider the question of erecting a new bridge at Padanaram, to replace the present wooden one.

NEW BEDFORD, MASS.—The following bids are said to have been received August 18 for constructing the New Bedford and Fairhaven bridge, as advertised in Engineering News: (1) being for the construction of temporary bridge and the removal of same, and (2) for removal of old bridge, estimated at about 10,000 cu. yds. of material: Lawler Bros., Cambridge, (1) $6,707, (2) $6,500; Thomas & Connor, Middleboro, (1) $5,300, (2) $7,100; Cole Bros., Fall River, (1) $6,750, (2) $5,900 and $7,300; Wm. Beattie, Fall River, (1) $7,432.

NATICK, R. I.—Fire recently destroyed the New York, New Haven & Hartford R. R. bridge over the Pawtucket River, between this city and Pontiac. A steel bridge, to cost about $20,000, will probably be erected at once, to replace the burned structure.

WOONSOCKET, R. I.—The council is said to have let the contract for erecting the Kendrick Ave. bridge, to cost about $7,000, to Joseph Gilman & Co., Longley Bldg.

HALE EDDY, N. Y.—Reports state that the contract for building the new iron bridge over the Delaware River, here, has been let to the Owego Bridge Co., at about $9,200.

MINEOLA (L. I.), N. Y.—County Engineer E. H. Firth has condemned the bridge at Bellmore, over Cameron's Pond, and also the one at Wantagh, over Jones' Pond, and recommends that new ones be built to replace them, according to reports.

ALLEGHENY, PA.—It is stated that a company has been organized by the business men of this place to build a bridge over the Ohio River to McKees Rocks. The company will also build a market house. The costs, respectively, are estimated at $100,000 and $25,000.

ALLENTOWN, PA.—The Allentown & South Allentown Bridge Co. has been incorporated with a capital stock of $100,000 by E. T. Clymer, M. C. L. Kline, H. C. Trexler and others, to erect a toll bridge over Little Lehigh Creek, Allentown, from Eighth St. to the town of Salisbury. Robert S. Rathborn, Ch. Engr.

HARRISBURG, PA.—It is stated that the board of public works is now receiving bids for constructing a bridge over Mulberry St., to cost about $15,000.

PHILADELPHIA, PA.—Chief Engineer Webster, Bureau of Surveys, is said to be preparing plans for a bridge at Coulter St., over the tracks of the Pennsylvania R. R., to cost about $22,000.

PITTSBURG, PA.—Bids are asked until Aug. 25 for filling the approaches to three bridges over Thompson River. W. E. Thompson, County Controller.

CLARKTON, VA.—Bids are asked until Aug. 24 for constructing a steel bridge over Staunton River at the mouth of Catawba Creek, near this city. The bridge is to be 402 ft. long, with two 150-ft. spans and 100 ft. of pile approach, the roadway is to be 12 ft. wide, and the elevation is to be 46 ft. from the low-water level. F. G. Baldwin, Chn.

EATON, O.—Press reports state that this county will issue $17,000 in bonds for erecting new bridges. O. A. Gale, County Auditor.

HAMMOND, IND.—The city council has authorized the building of a bridge at Hohman St., over the Calumet River. The proposition will now go to the county commissioners for consideration.

ROCKVILLE, IND.—The following bids are said to have been received Aug. 8 by S. W. Pike, County Auditor, for erecting five steel bridges and one arch culvert: J. A. & T. A. Britton, Rockville, $2,985 (accepted); James Biswell, Bloomingdale, Ind., $3,300; F. A. Biedenmeester, Indianapolis, Ind., $3,500; E. C. Griffith, Crawfordsville, Ind., $3,500; Ed. J. Craig, Indianapolis, Ind., $3,173.

VINCENNES, IND.—We are informed that the following bids were received Aug. 7 by the county commissioners for constructing three iron bridges with stone abutments: Toledo Bridge Co., Miami St., near Brown Road, E. S., Toledo, O., for bridges, $3,025; Lafayette Bridge Co., Lafayette Ind., for bridges and abutments, $3,165; Vincennes Bridge Co., Vincennes, for bridges and abutments, $3,222 (accepted); Indiana Bridge Co., Muncie, Ind., for bridges only, $2,707.

WABASH, IND.—We are informed that the contract for constructing six bridges was let Aug. 13 to the King Bridge Co., St. Clair, Head and Ruskin Sts., Cleveland, O., at $4,688.

COLDWATER, MICH.—Bids are asked until Sept. 3 for building the steel superstructure for four bridges. Bids for the substructure are wanted until Dec. 1. The bridges will be 12, 14, 16 and 26 ft. long, and 14 and 16 ft. wide. I. D. Miner, Engr., Coldwater. Address Volney Sweeting.

CHICAGO, ILL.—It is stated that the board of public works will soon ask for bids for constructing a bascule bridge over the north branch of the Chicago River at Clybourne Place, to cost about $160,00. Plans are now being prepared for a similar bridge over the north branch at West Division St.

URBANA, ILL.—Bids are asked by the county clerk until Aug. 28 for erecting a steel highway bridge over East Lake Fork, in the town of Lodorus, about 3½ miles from the depot. The span will be 50 ft. and the roadway 14 ft. wide. Plans and specifications are on file at the office of Engineering News, 220 Broadway, New York, N. Y.; M. S. Ketchum, Engr.

LEXINGTON, NEB.—Bids are asked until Aug. 24 for constructing a 40-ft. pile and stringer bridge, 16 ft. wide across the Cottonwood Canyon. J. T. Costin, County Clk.

BILLINGS, MONT.—It is stated that two steel bridges on the Northern Pacific Railway line, between this city and Glendive, were washed away by the recent floods.

LAVINA, MONT.—Bids are asked by the county commissioners until August 31 for the old Howe truss bridge over the Mussellshell River at Lavina, for constructing a single span steel bridge 128 ft. long over the Mussellshell River at Lavina, and for constructing a steel bridge 60 ft. long over the Judith River at Utica. C. M. Kelly, County Clerk.

COLORADO SPRINGS, COLO.—J. B. Marsh, Des Moines, Ia., is said to have prepared plans for a span bridge, 150 × 60 ft., for this city.

SILVERTON, WASH.—Bids are asked until Aug. 30 for building a bridge over the Stillaguamish River here. T. E. Headlee, County Clk., Snohomish.

PLACERVILLE, CAL.—Bids are asked until August 24 for constructing a bridge over Webbers Creek. John F. Fisher, Clk.

SOUTH PASADENA, CAL.—The people of this town are said to be considering the question of building a bridge across the Arroyo.

LOGAN, UTAH.—We are informed that the following bids were received July 27 by B. B. Fleming, Deputy County Surv., for constructing a 140 × 16-ft. steel span for the Bear River bridge, as advertised in Engineering News: Pueblo Bridge Co., Pueblo, Colo., $3,6[illegible]; Missouri Valley Bridge & Iron Works, Leavenworth, Kan., $3,644; C. E. H. Campbell, Council Bluffs, Ia., $3,2[illegible]; Gillette-Herzog Mfg. Co., Second St. and Sixth Ave., S. E., Minneapolis, Minn., $3,150 (accepted); Midland Bridge Co., Kansas City, Mo., $3,830.

BUILDINGS.

BOSTON, MASS.—Bids are asked until Sept. 4 for constructing one barrack, two double sets of officers' quarters, one stable, one bakery, one storehouse, one double non-commissioned staff quarters, one hospital and one hospital steward's quarters at Fort Strong, Boston Harbor. J. E. Sawyer, Depot Q. M., U. S. A., 170 Summer St.

BOSTON, MASS.—Bids are asked until Sept. 10 for reconstructing and repairing the plumbing in the U. S. post office building. James K. Taylor, Supv. Arch., Treasury Dept., Washington, D. C.

HOLLANDALE, MASS.—Bids are asked until Sept. 1 for erecting a church building here for the Baptist congregation. Address Dr. J. W. Magruder; John T. Casey, Secy. Com., Holland, P. O.

HOPKINTON, MASS.—The selectmen are said to be considering the question of issuing $30,000 in bonds for erecting a new town hall. No architect has yet been chosen.

WARREN, MASS.—It is stated that the people of this town are considering the question of erecting a new town hall.

PROVIDENCE, R. I.—E. T. Banning, 87 Weybosset St., is said to have prepared plans for the proposed new shoolhouse in Webster Ave., to cost about $30,000. No appropriation has yet been made.

BRIDGEPORT, CONN.—The following contracts have been let by the board of education for erecting the new schoolhouse on Wheeler Ave.: Mason work, Casey & Hurley, 10 Highland Ave., $24,125; carpenter work, A. A. Bown, $22,692; steam heating, F. & F. C. Booth, 87 Middle St., $6,594; plumbing and gas fitting, J. F. Brady & Bro., 839 Main St., $6,500; painting, Joseph P. Coughlin, $1,189; slating, A. McLevy & Son, $2,500.

ITHACA, N. Y.—It is stated that the board of trustees of Stiles University Preparatory School has decided to erect a new 5-story brick schoolhouse, 45 × 90 ft. on East Seneca St.

MINEOLA (L. I.), N. Y.—Bids are asked until Sept. 17 for erecting a county jail building. J. S. Snedecker, Clk.

NEW YORK, N. Y.—Bids are asked until Sept. 8 for erecting a brick and steel building at the navy yard. W. T. Endicott, Ch. Bureau Yards and Docks, Washington.

WILLETTS POINT, N. Y.—Bids are asked until Sept. 18 for constructing an ordnance storehouse, as stated in our advertising columns. William B. Ladue, Q. M.

PHILADELPHIA, PA.—The contract for erecting the 6-story brick warehouse at 710 to 720 Filbert St., for the J. B. Lippincott Co., has been let to J. E. & A. L. Pennock, 305 Walnut St.——F. L. Hover & Sons, 703 Ranstead St., are said to have plans for a new church building, to be erected at Manayunk Ave. and East Levering St., Roxborough, for the Fourth Reformed Evangelical Congregation, to cost about $45,000.

PHILADELPHIA, PA.—Bids are asked until Sept. 10 for erecting one marine barracks at the League Island navy yard. Col. F. L. Denny, Q. M., U. S. Marine Corps, Washington, D. C.

PITTSBURG, PA.—G. H. Matchett, of Cleveland, O., will, it is stated, erect a 5-story brick apartment house on Halket St., to cost about $60,000.

READING, PA.—Bids are asked by the county commissioners until Sept. 4 for erecting an addition to the kitchen at the county hospital. W. R. Kemmerer, Clk.

WASHINGTON, D. C.—Bids are asked until Sept. 11 for installing a wiring system for the Bureau of Engraving and Printing. James K. Taylor, Supv. Arch., Treasury Dept.

BALTIMORE, MD.—Bids are asked until Sept. 5 for alterations and repairs to the court house and for the erection of a temporary building, adjacent thereto. Jas. K. Taylor, Supt. Arch. Treasury Dept., Washington, D. C.

HAGERSTOWN, MD.—The contract for erecting the public library building here is said to have been let to S. Lewis Lamkin.

WASHINGTON, D. C.—Bids are asked until Aug. 27 for constructing the outbuildings for the bureau of engraving and printing. James K. Taylor, Supv. Arch., Treas. Dept.

WASHINGTON, D. C.—Bids are asked until Sept. 1 for erecting the steel frame work for a gunners' work shop at the navy yard. M. T. Endicott, Ch. Bureau Yards and Docks.

WASHINGTON, D. C.—Bids are asked by the district commissioners, until Sept. 1, for erecting a school house on Nichols Ave., Anacostia.

SOUTH BOSTON, VA.—Bids are asked until Sept. 1 for erecting a new Masonic temple. R. R. Noblin, Chn. Com.

WYTHEVILLE, VA.—Bids are asked until Sept. 15 for erecting a new county courthouse. Wm. B. Foster, Clk.

SELINA, ALA.—Bids are asked by Watkins M. Vaughan, Gillman Bldg., until Aug. 28 for erecting a new church building for the M. E. Congregation. Dr. G. T. Howard, Secy.

AGRICULTURAL COLLEGE, MISS.—R. C. King, Purchasing Agent, writes us that the following bids were received Aug. 13 for erecting a dormitory and a textile school building for the Mississippi Agricultural & Mechanical College, (1) being for dormitory and (2) for textile school building: Lindamood & Puckett, Columbus, Miss., (1) $12,497, (2) $23,949; Barrett & Johnson, Sheffield, Ala., (1) $12,345, (2) $23,200. All bids were rejected and Lindamood & Puckett were awarded the contract for the brick work, the college doing the rest of the work.

JACKSON, MISS.—Plans will be received until Sept. 10 for an opera house building, on lot 80 × 160 ft., on Capitol St., to have a capacity of about 1,500 and cost about $35,000. R. B. Minns, Chn. Bldg. Com.

SHREVEPORT, LA.—Bids are asked until Oct. 11 for erecting a jail building, to cost between $30,000 and $60,000. A. L. Duringer, Clk.

CHATTANOOGA, TENN.—Reports state that the fire committee will ask for an appropriation for erecting two new fire houses.

ALLIANCE, O.—Bids are asked until Aug. 23 for erecting a 2-story brick building for the Review Publishing Co. Address W. B. Hunt, Arch.

CLEVELAND, O.—Bids are asked until Sept. 7 for erecting a temporary library building at Wood and Rockwell Sts. E. W. Horn, Pres. Bldg. Com.; Harry Dixon, Secy., 100 Euclid Ave.

CLEVELAND, O.—Bids are asked until Sept. 5 for erecting an addition to the new courthouse on Seneca St. Julius C. Dom, County Clk.

DAYTON, O.—Bids are asked by the board of fire commissioners until Aug. 27 for erecting engine house No. 2. A. C. Nixon, Pres.; D. C. Larkin, Secy.

NORWOOD, O.—Rev. Francis Varelmanis, Pastor, writes us that no architect has yet been engaged to prepare plans for the proposed new church on Mills Ave. for the Congregation of St. Elizabeth, to cost about $40,000.

YOUNGSTOWN, O.—The contract for erecting the new theatre here, to cost about $80,000, is said to have been let to Chauncey N. Griffin, 429 The Arcade, Cleveland.

BENTON HARBOR, MICH.—Reports state that plans have been prepared for a new city hall building for this city, to cost about $40,000.

DETROIT, MICH.—The board of education has filed plans for a new school house at Boulevard and Mack Ave., to cost about $185,000; also for one at Junction Ave. and Fort St., to cost about $46,000.——It is stated that a 7-story brick apartment house will be erected on West Alexandrine Ave., to cost about $65,000. Louis C. McBride is said to be interested.——The council is said to be considering the question of remodeling and renovating the city hall at a cost of about $200,000.

GRAND RAPIDS, MICH.—The Grand Rapids Brewing Co. will, it is said, erect a 4-story brick storage building on Ottawa St., to cost about $60,000.

MENOMINEE, MICH.—Bids are asked until Sept. 27 for constructing (except heating apparatus, electric wiring and conduits) the U. S. post office building. James K. Taylor, Supv. Arch., Treasury Dept., Washington, D. C.

CHICAGO, ILL.—The Catholic Bishop has filed plans for a 1-story brick church, at 1119 and 1121 S. Albany Ave., to cost about $40,000.——E. R. Krause, Title & Trust Bldg., has prepared plans for a 4-story brick apartment house, 60 × 120 ft., at 385 and 387 North Clark St., for the Lehmann Estate, to cost about $40,000.——Daniel D. Healy, Supt. Public Service, is said to be in favor of enlarging the county building at a cost of about $500,000.——Dwight H. Perkins, 17 Van Buren St., has been engaged to prepare plans for a 4-story brick dormitory, 45 × 160 ft., at Ellis Ave. and 47th St., for the University of Chicago, to cost about $125,000, and also for a 2-story brick gymnasium building, 60 × 150 ft., for the Morgan Park Academy, to cost about $20,000.——Arthur Foster, 4310 Cottage Ave., is said to have completed plans for a 4-story apartment house, 100 × 132 ft., at 38th St. and the Grand Boulevard, for Julian Blair, to cost about $80,000.

MILWAUKEE, WIS.—The council is said to have decided to erect four new school houses, to cost about $250,000.——The contract for erecting the new building at 31st and State Sts. for Concordia College, to cost about $40,000, is said to have been let to C. Schoknecht, 1212 Second St. E. R. Leibert, Arch., 107 Wisconsin St.

ALGONA, IA.—Bids are asked until Sept. 4 for installing a steam or hot water heating plant in the county poor house. N. P. Weaver, County Auditor.

AMES, IA.—Prof. A. Marston writes that the following bids were received Aug. 15 for erecting a 4-story brick building for the Iowa State College: John Volk & Co., 311 18th St., Rock Island, Ill., $185,065; Peoria Stone & Marble Works, Peoria, Ill., $183,252; Butler-Ryan Co., Globe Bldg., St. Paul, Minn., $184,577; Capitol City Brick & Pipe Co., S. W. 12th St., Des Moines, $188,786; Hennessy & Cox, New York Life Bldg., St. Paul, Minn., $175,709; Henry W. Schluether, Chicago, Ill., $161,800. The contract, except the painting and substituting expanded metal fireproofing, was let to Henry W. Schlueter for $153,000.

DES MOINES, IA.—We are informed that no contracts have yet been let for erecting the proposed labor temple, and in all probability none will be this season. Hallett & Rawson, Archs.

WATERLOO, IA.—We are informed that no vote has yet been taken on the proposed issue of bonds for erecting a new courthouse. H. D. Williams, Clk.

CLAY CENTER, KAN.—The following bids are said to have been received Aug. 7 by J. H. Kerby, County Clk., for erecting the new courthouse: Roussellot, Penny & Co., Council Grove, Kan., $39,235; Garthwait & Co., Chicago, Ill., $35,569; Cuthbert & Sargent, Topeka, $33,989; Slade & Ross, Clay Center, $39,995; Ziegler & Dalton, Junction City, $33,770 (accepted).

BLAIR, NEB.—Bids are asked until Sept. 4 for constructing (except heating apparatus, electric wiring and conduits) the U. S. Post Office building. James K. Taylor, Supv. Arch., Treasury Dept., Washington, D. C.

HAMILTON, MONT.—Bids are asked until Sept. 3 for constructing a jail building complete, including steel cells, heating apparatus, etc. Howard D. Smart, County Clk.

KANSAS CITY, MO.—Hucke & Sexton, New York Life Bldg., will, it is said, prepare plans for an 11-story steel and stone building, 150 × 115 ft., at Ninth and Walnut Sts., for the Ferd. Helms Brewing Co., to cost about $350,000.

ST. LOUIS, MO.—C. S. Holloway is said to have prepared plans for a 3-story brick apartment house, 50 × 75 ft., on Delmar Ave., near Grand.

SEATTLE, WASH.—Bids are asked until Sept. 7 for the construction of a new schoolhouse. Lyman Banks, Secy.

OAKLAND, CAL.—We are informed that in all probabilities bonds for erecting the proposed 5-story brick city hall building, 120 × 210 ft., to cost about $300,000, will not be voted until next November. W. Jones Cuthbertson, Arch., 2565 Market St., San Francisco.

TORONTO, ONT.—Bids are asked until Aug. 23 for erecting a technical school building. Mayor E. A. MacDonald, Chn. Bd. Control.

WATER-WORKS.

CLINTON, MASS.—Bids are asked until Sept. 25 for furnishing the materials and for constructing the Wachusett dam at Clinton, as described in our advertising columns. F. P. Stearns, Ch. Engr. Metropolitan Water Bd.; W. N. Davenport, Secy.

GLOUCESTER, MASS.—Edward C. Hawkes, of Buffalo, N. Y., has repeated his offer to the city to use the mill site at Polls Island for a reservoir. A dam can be built and a main laid to the pumping station for about $50,000. The entire work, including pumping station, will cost $350,000. Up to Aug. 18 nothing regarding the work had been decided upon. F. T. Wonson, Clk.

HAVERHILL, MASS.—The contract for a new pumping station has been let to J. M. Roche, of this city, at $12,735.

LOWELL, MASS.—Bids for building the new pumping station and stack, to cost $10,000, will be received by the water board Aug. 24. The question of extending the mains, etc., is being considered. F. L. Weaver, Pres. Bd.

NORTHAMPTON, MASS.—No decision regarding a new water supply will be made for some time. C. W. Kinney, Pres. Water Com.

WILLIAMSTOWN, MASS.—Local papers state that H. M. Greer, of Ballston Spa, N. Y., has completed surveys for the new reservoir and pipe lines, to cost $25,000. Address Chas. G. Sanford, Supt., Williamstown Water Co.

ANGOLA, N. Y.—Only estimates for works have so far been made. Geo. W. Shipman, Pres. Village, wishes to receive catalogues and prices of materials for works. There will be required a pump sufficient to force water through an 8-in. pipe three miles long, and 200 ft. high; 4, 6 and 8-in. pipe, a stand-pipe, 70 ft. high, etc. Population, 1,000. H. J. Bangert, F. E. Candee, Dr. Sweetland and C. C. Robinson are on the committees.

BROOKLYN, N. Y.—The borough of Brooklyn has been authorized to build mains in several streets, at a cost of $47,000.——Superintendent of Supply and Repairs Hawkes, Brooklyn Dept. Water Supply, has notified the proprietors of all the large warehouses, hotels, and of the docks and ferry houses, that they will be compelled to have water meters put in, and at their own expense.

LANCASTER, N. Y.—Bids are asked until Aug. 31 for furnishing the materials and for constructing works, to consist of 900 tons of cast-iron pipe, 33,500 lbs. of special castings, 76 hydrants, 157 gate valves and covers, three meters, etc., and for laying about 50,000 ft. of 4 to 10-in. pipe, etc. The specifications are on file at the office of Engineering News, 220 Broadway, New York. W. M. Small, Engr.; Julius Wenz, Pres. Bd. Trustees; P. P. Adolf, Clk.

LESTERSHIRE, N. Y.—An election will be held Aug. 28 to vote on the question of issuing $16,000 in bonds for a reservoir and other improvements to the works. Address Trustees Horton and Seagers.

LOCKPORT, N. Y.—The Lockport & Lake Ontario Water Supply Co. has applied for a franchise for furnishing this city with a new water supply. Another proposition from the Lockport & Neafane Power & Water Supply Co. is being considered. The latter company proposes to take water from the lake one mile west of Lockport and pump it 12 miles to a reservoir on the outskirts of the city. This reservoir will hold 60,000,000 gallons, a sufficient supply for two weeks at the city's present rate of consumption. It will be furnished at a rate of about 4 cts. per 1,000 gallons to the city, which now sells canal water for 6 cts. per 1,000 gallons.

MIDDLETOWN, N. Y.—The original proposition to furnish this city with a new water supply was withdrawn Aug. 14. Wm. R. Hill, Syracuse, N. Y., is preparing a report on another scheme, which will probably be submitted to the people in about a month. F. O. Tompkins, Comr.; J. M. Hill, Secy.

NORWICH, N. Y.—About three miles of gravity-line will be built this fall by the water company connecting the works with a mountain lake. A tunnel a quarter of a mile long may be necessary. C. P. Bassett, Engr., Summit, N. J.; H. D. Newton, Pres.

SHORTSVILLE, N. Y.—Nothing definite has been done towards building works, except that a committee has been appointed to investigate cost and to make a report. The works will cost about $21,000. A vote on the question will be taken this fall. Up to Aug. 18 no engineer had been engaged. M. E. Goodrich, Chn. Com.

SMYRNA, N. Y.—This place has voted to issue $8,000 in bonds for works, construction of which will soon be begun. E. F. Musson, Engr., Norwich, N. Y.

WATERVLIET, N. Y.—Reports state that works, recently purchased by M. J. Drummond & Co., of New York, will be improved at a cost of about $75,000. S. M. Neff, Supt.

DOVER, N. J.—It is stated that the water commissioners are in favor of purchasing the works of the Dover Water Co. for $76,000. The committee is also in favor of laying pipes to Green Pond, etc., to cost about $200,000. C. C. Vermeule, Consult. Engr., 203 Broadway, New York.

MILLVILLE, N. J.—The Millville Water Co. is sinking about 20 wells for an increased water supply, according to reports.

ABINGTON, PA.—The North Springfield Water Co. has been petitioned to extend its mains to this place.

ALLEGHENY, PA.—No plans for the proposed filtration plant have yet been prepared. John R. Hendricks, Councilman, may be addressed.

BEAVER FALLS, PA.—The Union Drawn Steel Co. proposes to build a reservoir, etc., for fire protection.

EAST BANGOR, PA.—Bids are asked for furnishing and laying 3¼ miles of 6, 8 and 10-in. water pipe. C. W. Kent, Secy. and Town Clk.

GREENSBURG, PA.—The Standard Water Co., just incorporated with a capital of $10,000, will begin the construction of the proposed works in about 40 days, according to reports.

PHILADELPHIA, PA.—The U. S. Filter Co. and McNally & Shea have been awarded the contract for furnishing the water meters for the public schools.

PITTSBURG, PA.—Bids are asked until Sept. 4 for completing the Highland reservoir by Nov. 1, 1901. The cost of completing the works, left unfinished by the Jonathan Clark & Sons Co., of Chicago, will cost about $253,000. Bids will be asked next month for furnishing and laying 36 and 40-in. cast iron water mains in several streets, to cost about $700,000. Bids will also soon be wanted for furnishing and erecting three new pumping engines. These improvements are all to be completed by the end of next year. Work on the filtration plant will probably soon be begun. Other improvements and minor water pipe are proposed. Bids for two pumps are wanted until Sept. 4. Geo. W. Wilson, Dir. Dept. Pub. Wks.; A. B. Sheppard, Supt. Bureau Water Supply.

SCRANTON, PA.—The Scranton Gas & Water Co. is said to have purchased the property of the Olyphant Water Co. and is preparing to lay a 16-in. main from the Providence reservoir to Olyphant.

BALTIMORE, MD.—Local papers state that Councilman Jos. T. Steinacker is preparing a resolution authorizing the city to purchase the works of the Baltimore County Water & Electric Light Co. on the Frederick Road.

WASHINGTON, D. C.—Bids are asked until Aug. 30 for furnishing and erecting steam-pumping machinery for the works at the government hospital near this city. Thos. Ryan, Acting Secy. Dept. Interior.——Capt. D. D. Gaillard, Asst. to the Engr. Comr., has in his annual report, recommended that water meters be installed. Other improvements are recommended.

STUART, VA.—This place has voted to build works, to cost $5,000.

WHEELING, W. VA.—The water board is considering the question of introducing water meters.

SPARTANBURG, S. C.—The Home Water Co. has been incorporated with a capital of $50,000 by J. H. Montgomery, R. K. Carson and J. B. Cleveland.

ATLANTA, GA.—The proposed additions to the pipe system will cost about $250,000. A nef 15,000,000-gallon pump is also proposed. Local papers state that Peter Milne, of Brooklyn, N. Y., has been engaged by the citizens' committee to make an examination of the machinery at the pumping station. Geo. W. Harrison, Pres. Water Bd.; Capt. R. M. Clayton, Cy. Engr.; H. H. Cabaniss, Chn. Citizens' Water Com.

MONROE, LA.—Chas. A. Hague, 39 Cortlandt St., New York, has been retained by the Monroe Water Co. in the matter of the purchase of the works by the city.

NATCHITOCHES, LA.—Owen Ford, Security Bldg., St. Louis, Mo., has been awarded the contract for building works and an electric plant, according to reports.

ELKTON, KY.—The city officials have organized a fire company with Capt. J. A. Theiss as chief. The town has no water-works.

ALLIANCE, O.—Bids are asked by the joint board of commissioners of Stark and Columbia counties until Sept. 6 for furnishing and erecting a water tower at the Fairmount Children's Home.

ASHTABULA, O.—An election will be held Aug. 25 to vote on the question of issuing bonds for works, according to reports.

CINCINNATI, O.—The specifications for the four 30,000,000-gallon pumps for the California works, bids to be opened Oct. 16, and advertised in our columns, are on file at the office of Engineering News, 220 Broadway, New York. Aug. Herrmann, Pres. Bd. of Trustees.——The water board has decided to continue the gravity conduit all the way to the western pumping station, making the total cost over $1,000,000. About 14,000 ft. of the work remains to be let, the contract for a section of the work having recently been let to W. J. Gawn, of Cleveland, O., at $308,000.——F. H. Kirchner has secured the contract for the 16-ft. stone arch at the Lick Run crossing, at $11,265.

LAKEWOOD, O.—The question of issuing $43,000 in bonds for new works was defeated at the recent election. It is stated that another election will be called. The opponents of the works are urging the purchase of a water meter, to cost about $1,200. Address Mayor Berchtold, W. R. Wilbur and Jacob Tegerdine.

MONROEVILLE, O.—The question of the municipal ownership of the works and the electric plant is being investigated by D. C. Purnam, of the board of trustees.

ZANESVILLE, O.—The ordinance authorizing the issuance of $62,500 in bonds for a mechanical filtration plant has passed its first reading.

ALEXANDRIA, IND.—It is proposed to purchase and set three 8-in. valves, 11 hydrants and 4,000 ft. of 8-in. pipe. J. S. Humphrey, Cy. Engr.

LIGONIER, IND.—The city proposes to improve the works, at a cost of about $85,000, according to reports.

TELL CITY, IND.—The question of works is being considered, a company having offered to purchase a franchise. Address Mayor Kiefer.

BAY CITY, MICH.—The water commissioners propose to purchase additional water pipe. Address Chairman Lind or Superintendent Kubach.

HOMER, MICH.—This town has voted to issue $10,000 in bonds for works.

TRAVERSE CITY, MICH.—Reports state that bids will soon be wanted for hydrants, pipe, etc., for improving the works, to cost $25,000, recently purchased from Campbell & Sons. A. V. Fridrich, Mayor; A. V. Rickard, Cy. Clk.

VERMONTVILLE, MICH.—The question of works is reported as being discussed.

ALGONQUIN, ILL.—Bids are asked until Aug. 30 for constructing a reservoir, laying about 4,766 ft. of 4, 6 and 8-in. water pipes, four hydrants, etc. E. P. Wheeler, Engr., Old Colony Bldg., Chicago; John Nickles, Chn. Com.

GALESBURG, ILL.—Local papers state that the Chicago, Burlington & Quincy R. R. Co. will begin the construction at once of a large reservoir for a water supply for the locomotives and for fire protection. The reservoir will have a capacity for 275,000,000 gallons. F. C. Rice, Supt.

KIRKLAND, ILL.—This place has voted for works, according to reports.

LA GRANGE, ILL.—An ordinance has been passed authorizing the city ownership of the works of the La Grange Water & Light Co.

LINCOLN, ILL.—Plans for works are to be prepared at once, according to reports.

OAKLAND, ILL.—Reports state that this place proposes to build works to cost about $10,000.

SHELBYVILLE, ILL.—The City Water Co. has been incoroporated with a capital of $112,500 by Chas. F. Street, Wm. B. Hood and Victor Cumberson.

FOND DU LAC, WIS.—Reports state that the water company has been directed to furnish at once a purer water supply. F. B. Hoskins, Mayor; Henry Boyle, Pres.

TWO RIVERS, WIS.—Reports state that the city council has annulled the contract with C. A. Iglehart & Co., of Chicago, for constructing works and an electric plant. It is said that new bids for the improvements will be asked by the mayor at once.

HALLOCK, MINN.—The Des Moines Bridge & Iron Works, Des Moines, Ia., is reported to have been awarded the contract at $14,000 for building works.

MINNEAPOLIS, MINN.—The matter of a site for the proposed new pumping station, to cost about $100,000, is being considered.

SANBORN, MINN.—Bids are asked until Sept. 3 for sinking an 8 or 10-in. well, according to reports. G. E. Bartholomew, Village Recdr.

ARLINGTON, IA.—This place has issued $3,500 in bonds for works. The authorities want a contractor at once to put in a compressed air plant to cost not more than $4,000. No materials have yet been purchased. Population, 1,000. Jas. Cooney, Mayor.

CENTERVILLE, IA.—The question of selling the works to a Chicago syndicate is reported by local papers as being considered.

ELMA, IA.—The question of works is being considered, according to reports.

LA MOTTE, IA.—This place is said to be discussing the matter of works, as is also Tabor, Ia.

MANSON, IA.—It is stated that this town has voted for works.

WEST CONCORD, MINN.—F. E. Wright, of this place, has been awarded the contract at $3,120 for building works.

WHEATON, MINN.—Bids are asked until Sept. 7 for furnishing the materials and for constructing works, to consist of about 4,500 ft. of 8 and 6-in pipe, seven hydrants, a 60,000-gallon tank on an 80-ft. steel tower, etc. M. B. Haynes, Engr., Mankato, Minn; A. J. Fitzgerald, Recdr.

FORT SCOTT, KAN.—The council and Mayor Goodlander have voted to issue $175,000 in bonds for constructing municipal works and an electric plant.

BLOOMFIELD, NEB.—This place has voted to issue $7,160 in bonds for works. An engineer will be engaged at once to prepare plans, after which bids for the works will be asked. Pop., 1,000. W. D. Funk, Clk.

RANDOLPH, NEB.—The contract for laying about half a mile of extensions to the water mains has been let to E. C. McCashland, of Grand Island, Neb., and that for furnishing the necessary pipe and specials to M. J. Drummond & Co., 192 Broadway, New York. The Chicago Bridge & Iron Co., contractors for the standpipe, have sublet the contract for the concrete foundation to Reimers & Fried, of Lincoln, Neb. Additional water mains, an open well, and a new pumping plant are contemplated. Arnold C. Koenig, Engr., Grand Island.

BOWLING GREEN, MO.—Judge J. E. Thompson is reported as arranging to let contracts for the proposed works, the franchise for which was granted to W. F. Mayhall and Noah Ledford, of this place, last May.

ST. LOUIS, MO.—The board of public improvements has awarded the following contracts for material for water-works mains: About 5,390 tons of water pipe, U. S. Cast-Iron Pipe & Foundry Co., $128,498; valves, the Fulton Iron Works, $1,786; 170 tons of special castings, U. S. Cast-Iron Pipe & Foundry Co., $7,480.

DENVER, COLO.—The aldermen have passed an ordinance to introduce water meters in those localities not supplied with water from the water companies' mains. Local papers state that Alderman Currigan's plans for municipal ownership of the works are progressing.

SPOKANE, WASH.—City Engineer Welle has reported in favor of extending the mains and constructing two reservoirs to make the north and south side systems separate. The mains will range up to 26 ins. in diameter.

LOS ANGELES, CAL.—Bids are asked until 8 p. m., August 25, for furnishing a steel boiler 60 HP.; a straight-line compressor cylinder, 12 × 18; a duplex feed pump, 6 × 4 × 6, etc. G. O. Renner, Cy. Clk.

SEBASTOPOL, CAL.—Reports state that the question of building works is being considered.

PRESCOTT, ARIZ.—Reports state that Geo. W. Sturtevant, of this city, and Chicago, is making arrangements for the immediate construction of the proposed pipe line in the Chino Valley, to supply this city with 500,000 gallons of water a day. There will be about 20 miles of pipe and a pumping engine with a capacity of 350,000 gallons. An election will soon be held to vote on the question of issuing $150,000 in bonds for the works.

BARRIE, ONT.—W. F. Grant & Co., of Toronto, are reported to have been awarded the contract for extending the mains to Allandale. The contract for the pipe has been let to the Canada Foundry Co., of Toronto, and that for the valves, hydrants, etc., to the Kerr Engine Co., Walkerville, Ont.; total, about $14,400.

PORT HOPE, ONT.—R. E. Speakman, Canada Life Bldg., Toronto, Ont., is reported as preparing plans for a new pump, boiler and water tower for the works.

ST. LAURENT, MONTREAL, QUE.—Up to Aug. 18 the contract for building works, to cost about $75,000, had not been let. Pop. 3,000. J. O. A. Laforest, Engr., Montreal; Edward Gohire, Mayor.

MEDICINE HAT, N. W. TER., CAN.—Bids are asked until Sept. 15 for the purchase of $40,000 4% 20-year bonds for the proposed works, the bids for which have already been asked. W. N. Adsit, Town Clk.

SEWERAGE.

PORTLAND, ME.—The council is said to be considering the question of appropriating $20,000 for extending the north side sewer.

BOSTON, MASS.—Bids are asked by the Metropolitan Sewerage Commissioners until Sept. 17 for constructing about 8,320 ft. of sewers, as stated in our advertising columns. Wm. M. Brown, Jr., Ch. Engr.

CHICOPEE, MASS.—The contract for constructing the Willimanset sewer is said to have been let to Sullivan & Enright, Chicopee Falls, at $16,134.

BRIDGEPORT, CONN.—The council will soon ask for bids for constructing a sewer in Stratford and Wilmot Aves., according to reports. Albert E. Lovery, Cy. Clk.

NEW BRITAIN, CONN.—W. H. Cadwell, Cy. Engr., is said to have completed plans for a complete disposal system.

ROCKVILLE, CONN.—The board of public works has asked the council to appropriate $3,000 for constructing a sewer in McLean St.

FORT EDWARD, N. Y.—Reports state that the trustees are considering the question of building a sewer in McCrea St.

NEW YORK, N. Y.—Bids are asked by the department of sewers, 21 Park Row, until Aug. 29 for constructing sewers in Broadway and Avenue A, and alterations to the sewer in Hubert St., Manhattan, and for constructing sewers in Sullivan and 86th Sts. and Nostrand Ave., Brooklyn. James Kane, Comr.

SANDY HILL, N. Y.—Charles Deileth, Jr., of Columbia College, New York, N. Y., is said to have completed surveys for a system here, and estimates the cost at about $67,400. A special election will probably soon be held to vote on the question of construction.

SARATOGA SPRINGS, N. Y.—Bids are asked until Aug. 23 for constructing pipe sewers on Ash, Beekman and Division Sts. H. F. Thomas, Clk. Sewer Bd.

SYRACUSE, N. Y.—The board of contract and supply is said to have received the following bids for constructing a trunk sewer in the First Ward: F. S. Sposato, 426 Kirk Bldg., $33,221; T. F. Moore, $41,897; Charles Smith, $54,668; M. R. Grannis, Grand Opera House Block, $44,-598; Thomas Marnell, 228 West Belden Ave., $39,338.

BORDENTOWN, N. J.—Reports state that this town contemplates constructing a system.

PITTSBURG, PA.—The following bids are said to have been received August 2 by G. A. Gilfillay, Engr., for constructing sewers in Bennot Ave.: Dunlus Bros., 3903 Boundary St., Pittsburg, $4,647 (accepted); Jas. H. McQuade, 3512 Fifth Ave, Pittsburg, $8,282; Jos. Thomas, $8,632; Ott Bros., 1825 Wharton St., South Side, Pittsburg, $7,508; Sweeney & Houston, 32d St. and P. R. R., Pittsburg, $7,784; Cronin & O'Herron, S. 17th and Muriel Sts., Pittsburg, $6,540.

WASHINGTON, D. C.—Bids are asked by the district commissioners until Sept. 8 for constructing sewers in the district, as stated in our advertising columns.

SUMTER, S. C.—The people of this city are said to be considering the question of constructing a system to cost about $60,000.

BESSEMER, ALA.—The council has directed the street committee to prepare an ordinance providing for the extension of the system.

FLORENCE, ALA.—Frank S. Washburn, of Nashville, Tenn., is said to have completed plans and specifications for the proposed system for this city, to cost about $50,-000. Work on the first section, to cost about $10,000, will probably be started at once.

CINCINNATI, O.—The city engineer is said to have estimated the cost of constructing sewers in Congress and Kellogg Aves. at $20,271 and in Kellogg and McCullough Aves. at $19,374.

GALION, O.—Bids are asked until Sept. 18 for constructing about 7,900 ft. of 12 to 24-in. pipe sewers, average cut about 12½ ft., to cost about $12,000. J. W. Atkinson, Cy. Engr.; J. R. Homer, Mayor.

HAMILTON, O.—The council has passed an ordinance providing for the construction of a sewer in Tenth and High Sts. J. Helvay, Pres. Bd. Control; M. O. Burns, Cy. Clk.

SANDUSKY, O.—Bids are asked until August 25 for constructing a sewer in Putnam St. A. W. Miller, Cy. Clk.

SHELBY, O.—Bids are asked until Sept. 3 for constructing about three miles of 8-in. sewers. J. B. Weddell, Engr.

TOLEDO, O.—Bids are asked by the city clerk until Aug. 27 for constructing an 8-in. pipe sewer in two alleys, and until Sept. 10 for constructing several brick and pipe sewers. J. E. Connell, Cy. Clk.

INDIANAPOLIS, IND.—Bids are asked by the board of public works until August 24 for constructing a sewer in one street.

MIDDLETOWN, IND.—Bids are asked, according to reports, by the city clerk, until Aug. 29 for constructing a sewer across the eastern part of this town to Fall Creek.

WABASH, IND.—Bids are asked until August 27 for constructing a sewer in Main St. Robert P. Woods, Cy. Engr.

SHEBOYGAN, WIS.—Reports state that the contract for constructing about two miles of pipe sewers, to cost about $20,000, has been let to J. H. Green & Sons, Appleton.

DES MOINES, IA.—The council is considering the question of constructing an 18-in. pipe sewer in Woodland Ave. J. J. Hartenblower, Mayor; E. R. Bennett, Cy. Clk.

MARSHALLTOWN, IA.—We are informed that the council has engaged Geo. S. Pierson, of Kalamazoo, Mich., to prepare plans for a sewage disposal plant, with a capacity of 2,000,000 gallons a day, with septic tanks, bacteria filters, etc. Prof. A. Marston, of the Iowa State College, Ames, Ia., will be consulting engineer.

RAWLINS, WYO.—The contract for constructing a system for this town, to cost about $21,000, is said to have been let to Thomas Scanlan, Denver, Colo.

POMONA, CAL.—Bids are asked until August 23 for constructing an outfall system, requiring 37,200 ft. of 12-in. and 3,200 ft. of 10-in. pipe sewers, according to reports. W. H. Shureman, Cy. Clk.

GARBAGE DISPOSAL—STREET CLEANING

NEW YORK, N. Y.—P. E. Nagle, Comr. Street Cleaning Dept., has submitted eight new forms of contract specifications for the removal of garbage.

ORANGE, N. J.—Bids are asked by the city clerk until Aug. 27 for furnishing and erection of a garbage crematory, and for disposing of garbage, offal, etc. The plant must dispose of the garbage of a city of 44,000 people, and is to cost about $10,000. Edward Perry, Chn. Com.

McKEESPORT, PA.—The council is said to be considering the question of purchasing a sprinkler, a street sweeper and two wagons. R. A. Hitchins, Cy. Comptroller.

READING, PA.—The Mayor has, according to reports, vetoed the resolution providing for the erection of an emergency crematory.

CANTON, O.—Reports state that a special election will be held Aug. 25 to vote on the question of issuing $20,000 in bonds for erecting a garbage disposal plant. Phil. H. Weber, Cy. Engr.

SWAYZEE, IND.—John T. Anderson, Health Officer, will, it is said, receive correspondence from manufacturers of garbage furances. This city contemplates purchasing a small one.

LOGANSPORT, IND.—The city clerk received bids recently for collecting and disposing of the garbage for three years.

BLOOMINGTON, ILL.—It is not likely that a contract will be let this year for a plant to cost about $4,000. C. C. Hauer, Cy. Clk.

MINNEAPOLIS, MINN.—Local papers state that contracts for the boilers, stack, etc., and for building the Decarrie plant have been let and work begun.

WICHITA, KAN.—The council is considering the question of erecting a crematory, to cost about $35,000, according to reports. Address Mayor Ross.

GALVESTON, TEX.—City Engineer Peek is reported as asking for bids for the pile foundation for the proposed crematory.

STREETS AND ROADS.

BOSTON, MASS.—Bids are asked by the state highway commission until August 23 for constructing about 1,700 ft. of state road in Chester, 2,000 ft. in Warren, 2,200 ft. in Lunenburg and about 2,700 ft. in Fitchburg.

LOWELL, MASS.—Recent reports state that the board of aldermen has decided against the proposed appropriation of $42,000 for smooth paving.

NORTH ADAMS, MASS.—Bids are asked until Sept. 1 for 1,500 yds. of brick paving, as stated in our advertising columns. J. L. Temple, Comr. Pub. Wks.

NEW HAVEN, CONN.—Bids are asked until Aug. 29 for constructing crushed-stone pavements on Ferry and Cassius Sts. C. W. Kelly, Cy. Engr.

TOLLAND, CONN.—Bids are asked by the board of selectmen until August 25 for grading and graveling a road in this town.

NEW YORK, N. Y.—The following bids have been received by the department of highways, 21 Park Row, for constructing certain street improvements: For paving Rector St., asphalt blocks, Hastings Pavement Co., 66 Broad St., $3,030; Abbot-Gamble Con. Co., Times Bldg., $3,030. Paving Cedar St. with asphalt blocks, Hastings Pavement Co., $2,900; Abbot-Gamble Co., $3,024. Paving West 66th St. with asphalt blocks, Hastings Pavement Co., $10,390; Abbot-Gamble Co., $10,488. Furnishing broken stone and screenings, Brown & Fleming, 129 Broad St., $8,288; Jacob E. Conklin, $9,350; Manmattan Traprock Co., $11,050; D. C. Bowker, Jr., $11,220. Paving Carroll St., Brooklyn, with asphalt, Brooklyn Alcatraz Asphalt Co., 3d St near 3d Av., Brooklyn, $73,402; Cranford Co., 524 S. Marks St., Brooklyn, $74,169; Eastern Bermuda Asphalt Paving Co., 11 Broadway, $74,892. Delivering sand, Murray & Reid, $2,226; Phoenix Towing & Transportation Co., $2,247; Norton & Gorman, 301 Dougl St., Brooklyn, $2,436. Delivering broken stone, William R. Smith, $13,140; Joseph Walker, 319 East 38th St., $[illegible],200; Brown & Fleming, $13,500; Manhattan Traprock Co., $13,800.

NEW YORK, N. Y.—The board of public improvements has authorized the following street work in Manhattan Borough, regulating and grading Tenth Av., to cost about $58,500; paving West 118th St., to cost about $6,400; West 120th St., to cost about $12,200; West 178th St., to cost about $22,300, and Gerard Ave., to cost about $2[illegible],000; and the following in Bronx Borough, sidewalking, regulating, grading, etc., in East 187th St., to cost about $40,-000; in Tiebout Ave., to cost about $39,000, and in Clinton place, to cost about $9,400; and also the following in Brooklyn Borough, paving Cator Ave., to cost about $15,-000; Bleecker St., to cost about $5,900; Woodruff Ave., to cost about $17,600; Pitkin Ave., to cost about $7,700 and Barbey St., to cost about $20,500.

SYRACUSE, N. Y.—The council has ordered Liberty St. paved with asphalt, at a cost of about $6,400. Clover St. graded, and South Warren St. paved with asphalt. E. F. Allen, City Treas.

CAMDEN, N. J.—Bids are asked until Sept 10 for constructing a telford macadam road from Coffin's Corner to White Horse Road, via Ashland, about 2⅝ miles, as stated in our advertising columns. Dr. John B. Davis, Dir.; J. J. Allerton, County Engr.

FREEHOLD, N. J.—The board of chosen freeholders is said to have let the contract for constructing Hightstown stone road to T. V. Conover of Manalapan, and Dr. W. T. McMillan of Perrineville, at $10,998; and for grading the Beadevelt-Holmdel stone road to Daniel H. Taylor, Beadevelt, at $4,636.

HOBOKEN, N. J.—Bids are asked until Sept. 26 for paving portions of ten streets with asphalt and for constructing asphalt strips on a number of streets. John Haggerty, Cy. Clk.

ST. AUGUSTINE, FLA.—It is stated that the council will soon order Cathedral Place and Hypolita St. paved with brick.

TAMPA, FLA.—The county commissioners have decided to call a special election to vote on the question of issuing $300,000 in bonds, for constructing about 125 miles of county roads.

FRIARPOINT, MISS.—Bids are asked until Sept. 3 for constructing a gravel road on the Clarksdale and Friarpoint road. M. J. Bouldin, Clk.

LOUISVILLE, KY.—Reports state that the council will soon take up the question of asphalting the streets around the city hall, to cost about $25,000.

DAYTON, O.—Bids are asked by Robert H. Ferguson, Cy. Comptroller, until Sept. 4 for paving Wroe and Greenwood Aves., and until Sept. 17 for paving Parrott St with brick.

DAYTON, O.—Bids are asked until Sept. 17 for laying about 5,650 sq. yds. of brick or block pavement and 3,300 lin. ft. of curbing on Richard St. C. A. Herbig, Pres. Bd. Cy. Affairs; Robert H. Ferguson, Cy. Comptroller.

LANCASTER, O.—We are informed that all bids for the improvement of High St. have been rejected, and that the city clerk will receive new ones in about thirty days. John N. Wolfe, Cy. Engr.

LIMA, O.—Bids are asked, according to reports, until August 30 for paving West Hight St. and Buckeye Alley with brick. C. E. Lynch, Cy. Clk.

MILLERSBURG, O.—Bids are asked, according to reports, until Sept. 3 for improving North Washington St. Robert H. Hanna, Village Clk.

WAUSEON, O.—Bids are asked until Sept. 3 for paving Elm St. with brick. A. S. Bloomer, Village Clk.

COLUMBUS, IND.—Bids are asked until Sept. 3 for constructing about 7½ miles of county gravel road in Jackson township. S. W. Fitch, County Auditor.

GAS CITY, IND.—Bids are asked until August 24 for constructing about 2½ miles of brick sidewalks. Wm. P. Alexander, Cy. Clk.

CHAMPAIGN, ILL.—Bids are asked by the board of local improvements until August 25 for paving Hill and Tremont Sts. with brick, requiring about 11,320 sq. yds. of pavement, 7,300 lin. ft. of concrete curb and gutter, 1,860 lin. ft. of limestone curb, 4,750 cu. yds. of excavation and 16 catchbasins. W. H. Tarrant, Cy. Engr.

DANVILLE, ILL.—Bids are asked until Aug. 29 for constructing macadam roads, cement sidewalks, etc., on the grounds of the Danville Branch of the National Home for D. V. S. I. Clements, Governor; W. C. Tuttle, Treas.

GALESBURG, ILL.—Bids are asked until Aug. 31 for paving Willard St., with brick, requiring about 9,032 sq. yds. of pavement, 4,500 cu. yds. of earthwork, and 4,200 ft. of curb. M. J. Blanding, Cy. Engr.

MOLINE, ILL.—The council has, according to reports, passed ordinances providing for the paving of 16th St. with brick, to cost about $18,361; 17th St. with asphalt, to cost about $11,847, and 10th St. with brick, to cost about $23,052.

PARIS, ILL.—Z. T. Baum, Mayor, writes us that bids will be received about the last of September for about 6,000 sq. yds. of brick pavement on a concrete foundation, to cost about $8,984. L. C. Fisher, Engr.

OSHKOSH, WIS.—Bids are asked by the board of public works until August 27 for paving Main St. with brick.

BRAINERD, MINN.—Bids are asked by the county auditor until Sept. 4 for furnishing one stone crusher, capacity ten tons an hour, and a road roller. The bids received August 7 were all rejected.

ST. PAUL, MINN.—The following bids were received Aug. 13 by the board of public works for about 7,382 sq. yds. of asphalt pavement on Mackubin St.; American Contracting Co., W. H. Love, Agent, 655 Rice St., $18,-967; the Barber Asphalt Paving Co., $19,175.

SAN ANTONIO, TEX.—Bids are asked until Sept. 3 for constructing about 101,000 sq. yds. of pavement on several streets. Marshall Hicks, Mayor; W. W. Johnson, Cy. Clk.

KINGSVILLE, ONT.—Bids are asked until Aug. 27 for constructing about 33,000 sq. ft. of granolithic sidewalks. W. A. Smith, Clk.

MANUFACTURING PLANTS.

LYNCHBURG, VA.—The Virginia State Fertilizer Co. will, it is said, soon erect a plant here, to cost about $60,000.

LANCASTER, S. C.—The Lancaster Cotton Mill will increase its capital from $1[illegible],000 to $1,000,000, and enlarge its plant, according to reports.

BRISTOL, TENN.—Press reports state that Mayor Charles F. Gauthier will increase the capacity of his pork packing establishment, and will at once erect a 3-story brick building, 90 × 160 ft., at Lee and Water Sts., to cost about $25,000.

CLEVELAND, O.—The Independent Brewing Co. was recently incorporated with a capital of $100,000 by C. R. Hildebrandt, L. C. Theobold, C. P. Corlett, N. W. Sanders and J. F. Wilson, who will at once erect a 4-story brick building, 95 × 75 ft., on Clark Ave.

ALEXANDRIA, IND.—The plant of the Kelly Axe Mfg. Co. was recently destroyed by fire; loss about $800,000. W. C. Kelly, Pres.

GLADSTONE, MICH.—It is stated that the Cleveland Cliffs Iron Co. will erect at its furnaces here a wood car-building plant with a capacity of 50 tons daily.

APPLETON, WIS.—The Northwest Paper Co. is said to be about to erect a new wood pulp mill here.

PUEBLO, COLO.—Fire recently destroyed Bessemer, the steel works suburb of this city, and also T. H. Foley's lumber yards and warehouses; reported loss about $100,000.

GAS PLANTS.

BEVERLY, MASS.—It is stated that the Beverly Gas & Electric Co. will erect a new gas reservoir with a capacity of 100,000 gallons. E. J. Hassett, Supt.

PITTSFIELD, MASS.—Press reports state that the Pittsfield Coal Gas Co. will erect a new plant on Beaver St., with a capacity of about 250,000 gallons, to cost $100,000. Wm. R. Plunkett, Treas.

TAUNTON, MASS.—The Taunton Gas Lighting Co. will, it is said, erect a new plant on its property in Weir village.

CARBONDALE, PA.—The Carbondale Machine Co. is said to have received the contract for the steel work at the new plant of the Carbondale Gas Co.

FOND DU LAC, WIS.—The Fond du Lac Gas Co. will erect a new plant, according to reports.

TOPEKA, KAN.—The Kansas Oil & Gas Co. is said to have let the contract for drilling ten gas wells on its property near Coffeyville. The company expects to have 20 wells in operation by Oct. 1.

SANTA CLARA, CAL.—This town has rejected all bids, according to reports, for laying new mains, and will re-advertise the work. C. E. Moore, Engr.

MEDICINE HAT, N. W. TER.—Bids are asked until Sept. 1 for sinking a 6-in. natural gas well about 800 ft. deep. W. N. Adsit, Town Clk.

MISCELLANEOUS CONTRACTS.

CREMATORIUM.—Montreal, Que.—It is stated that a crematorium will shortly be erected here.

CLEANING DITCHES.—Marion, O.—Bids are asked by the city clerk until August 29 for cleaning out Rock Snail and Silver St. ditches.

CREMATORIUM.—Toronto, Ont.—It is stated that the city has decided to purchase a crematorium from the Toronto Crematory Co., for $12,000.

WHARF.—Hull, Que.—Bids are asked until August 31 for constructing a concrete and masonry wharf here. Jos. R. Roy, Acting Secy. Dept. Pub. Wks., Ottawa, Ont.

IMPROVEMENT BONDS.—Cohoes, N. Y.—Bids are asked until Sept. 1 for the purchase of $36,906 in bonds for public improvements. Miller Hay, Chamberlain.

TELEPHONE MATERIAL.—London, O.—J. C. Haner is said to be in the market for poles, wires, cables, tools, telephones, etc., for a service of about 600 subscribers.

TELEPHONE FRANCHISE.—Wichita, Kan.—It is stated that the council has directed the city clerk to advertise for bids for a franchise for a telephone system in this city.

LEVEE WORK.—Memphis, Tenn.—Bids are asked until Aug. 30 for certain levee work in the Lower St. Francis and Upper Yazoo Levee Districts. Capt. E. E. Winslow, U. S. Engr.

REPAIRING BREAKWATERS.—Petoskey, Mich.—The contract for repairing the breakwaters at Petoskey is said to have been let to Adolph Green, Green Bay, Wis., at $2,460.

PIER.—Philadelphia, Pa.—The contract for erecting the double-deck pier at the Race St. wharf, Delaware River, has been let to Ryan & Kelly, 8 South Broad St., at $103,000.

DREDGING.—Savannah, Ga.—Bids are asked until Sept. 17 for dredging at Cumberland Sound, Ga., and Fla., as stated in our advertising columns. Capt. C. E. Gillette, U. S. Engr.

ACCUMULATORS AND ACCESSORIES.—New London, Conn.—Bids are asked until Sept. 14 for furnishing two sets of accumulators and accessories. Maj. Smith S. Leach, U. S. Engr.

TELEPHONE SYSTEM.—Johnstown, Pa.—Bids are asked until August 27 for constructing a complete underground distributing system for the Johnstown Telephone Co. Enoch James, Secy.

TRACK TANKS.—Rowayton, Conn.—The New York, New Haven & Hartford R. R. Co., is said to have let the contract for about 22,000 ft. of track tanks to the Pacific Iron Works, of Bridgeport.

CREMATORIUM.—Long Island City, N. Y.—The building commissioners have issued a permit to Henry O. Ruhe, to erect a 1-story brick crematorium, 40 × 49 ft., at Jackson and Gosman Aves., to cost about $15,000.

LEVEES, ETC.—New Orleans, La.—Bids are asked until Sept. 1 by the Southwestern Rice & Canal Co., Ltd., 418 S. Peters St., for the construction of levees, etc., in Calcasieu Parish. Address D. M. Gier Jennings.

FILLING, ETC.—Danville, Ill.—Bids are asked until August 29 for excavating, filling and grading on the grounds of the Danville Branch of the National Home for D. V. S. W. C. Tuttle, Treas.; I. Clements, Governor.

PARK WORK.—Philadelphia, Pa.—The contract for improving Fattnall Park has been let to Frank McCullough, at $9,400, and for improving Star Garden Park to the Pennsylvania Asphalt Paving Co., 1345 Arch St., at $4,232.

LOCKS AND DAMS.—Pittsburg, Pa.—Bids are asked until Sept. 15 for completing two locks and dams and for building four locks and dams in the Monongahela River above Morgantown, as stated in our advertising columns. Maj. C. F. Powell, U. S. Engr.

LEVEE WORK.—Tallulah, La.—Bids are asked until Aug. 27 for raising and enlarging eight levees. A. T. Lane, Secy. Bd. Levee Comrs.——At the same time and place, the board of state engineers will let the contract for the Cabin Tule new levee, about 200,000 cu. yds.

LAMP POSTS.—Duluth, Minn.—Bids are asked until Oct. 1 for furnishing and setting in place lamp posts on the concrete superstructure of piers to the Duluth Ship Canal, and for furnishing extra glass globes, as stated in our advertising columns. Maj. C. B. Sears, U. S. Engr.

MONUMENTS.—Pittsburg Landing, Tenn.—R. B. Brown, Pres., Ohio Shiloh Battlefield Commission, Zanesville, writes us that bids were received August 15 for erecting a number of monuments at the Shiloh National Military Park, but they will not be made public for at least a month.

BOILERS, ENGINES, ETC.—Washington, D. C.—The following bids were received August 11 for furnishing engines, steam boilers and generators in the capitol building: Westinghouse Electric & Mfg. Co., Pittsburg, Pa., engines and generators, $24,330; Babcock & Wilcox Co., New York, N. Y., boiler, $5,511.50.

NAVAL SUPPLIES.—Washington, D. C.—Bids are asked until August 28 for furnishing a quantity of lamps, wire, pig iron, etc., at the New York navy yards, and a quantity of hardware, screws, drills, pig tin, pipe, fittings, valves, etc., at the League Island, Pa., navy yard. A. S. Kenny, Paymaster Gen., U. S. N.

DRY-DOCK.—San Francisco, Cal.—Bids are asked until Oct. 9, and not Oct. 8, for constructing the dry-dock for the San Francisco Dry-Dock Co., noted in our last issue, and stated in our advertising columns. The plans and specifications for the work are now on file at the office of Engineering News, 220 Broadway, New York. H. C. Holmes, Ch. Engr., State Harbor Bd.

BOILERS.—Fall River, Mass.—The following bids are said to have been received August 13 by James K. Taylor, Supv. Arch., Treasury Dept., Washington, D. C., 28 Union boilers for the U. S. building here: Buerkel Co., 28 Union Park, Boston, Mass., $4,673; Cook & Grew, Second and Borden Sts., Fall River, Mass., $2,522; Albert B. Franklin, 167 Fort Hill Square, Boston, Mass, $3,708.

HOSE WAGON.—St. Paul, Minn.—The following bids were received August 14 by J. A. Owens, Secy. Bd. Fire Comrs., for furnishing a hose wagon; J. H. Schurmeier, 405 Rosabel St., $400 (accepted); Mahle Wagon Co., Eighth and Oliver Sts., $406; Mitsch Wagon & Carriage Co., N. Seventh St. and Washington, $439.——The board will advertise soon for a combination hose wagon.

RIVER IMPROVEMENTS.—Sacramento, Cal.—Bids are asked until Sept. 8 for constructing a concrete weir, requiring about 1,300 cu. yds. of concrete, 35,000 cu. yds. of excavation for foundations, etc., 625 piles and about 120,000 ft. B. M. of redwood sheet piling, on the ranch of J. B. Tisdale in Sutter county, and for a cut-off, requiring about 120,000 cu. yds. of excavation for a channel 1,200 ft. long and 125 ft. wide at Snaggy Bend. John Markley, Secy.

FIRE ALARM SYSTEM.—Cleveland, O.—The following bids have been received by the fire commissioners for a fire alarm system: The Gamewell Fire Alarm Telegraph Co., 19 Barclay St., New York, N. Y., for system, $47,850, and $100 each for 200 new boxes; the Municipal Signal Co., Chicago, Ill., $32,000 for system, and $113 for 100 new boxes; J. Bunnell & Co., 20 Park Place, New York, N. Y., $61,125 for system and boxes; the American Watchman's Time Detector Co., 234 Broadway, bid $6,500 for 100 boxes.

MONUMENT.—New York, N. Y.—The following bids were received August 21 for erecting the soldiers' and sailors' memorial monument in Riverside Drive, (1) being for the monument, (2) for interior work and (3) for the platform: United Engineering & Contracting Co., 17 Park Row, (1) $159,734, (2) $34,854, (3) $29,923; Thomas Dwyer, 5 Beekman St., (1) $138,147, (2) $24,352, (3) $26,859; Orlando D. Norcross, (1) $146,620, (2) $26,000, (3) $32,000; Jas. D. Murphy, (1) $152,438, (2) $29,350, (3) $32,664; Jno. H. Deeves, United Charity Bldg., (1) $150,600, (2) $31,490, (3) $27,136.

COALING PLANT.—Frenchmen's Bay, Me.—The following bids are said to have been received August 21 by the bureau of equipment, navy department, Washington, D. C., for a coaling plant at the naval depot here: McMyler Mfg. Co., 182 Columbus St., Cleveland, O., $267,500 and $199,300; Hoffman Engineering & Contracting Co., Philadelphia, Pa., submitted four propositions ranging from $237,000 to $319,825; Snare & Triest, 39 Cortlandt St., submitted 18 propositions, ranging from $178,000 to $248,000; August Smith, 39 Cortlandt St., submitted three propositions, ranging from $149,000 to $177,318.

FOREIGN CONTRACTS AND EXPORT NEWS.

GAS.—Palma, Balearic Islands.—Bids are wanted at once by the city authorities for furnishing this city with a supply of gas for 20 years.

FLOATING CRANE.—Sydney, N. S. W.—The department of works is reported as preparing plans for a new floating crane to have a capacity of 80 tons, and to cost about $50,000.

SEWER PIPE WORKS.—Mexico, Mex.—The Mexican Clay Mfg. Co. has been incorporated with a capital of $1,000,000 by R. C. Penfield, 39 Cortlandt St., New York, to build sewer pipe works in Mexico.

MUNICIPAL BUILDING.—England.—Plans are wanted by the town clerk, Musselburgh, until Sept. 30, and by J. M. Hayton, town clerk, South Shields, until Oct. 30, for municipal buildings, to cost about $125,000 each.

ELECTRIC PLANT.—Plumstead, London, Eng.—Bids are asked until Sept. 19 for furnishing a complete electric plant; deposit for plans, $15. J. B. Mitchell, Elec. Engr., Vestry Hall, Plumstead; Edwin Hughes, M. P., Clk.

ELECTRIC RAILWAYS.—Munich (Bavaria), Germany.—The Bavarian Chamber of Deputies has decided to build electric roads in 34 towns, to cost about 45,000,000 marks. Work on half the lines, it is stated, will begin at once.

RAILWAY STATION.—Hamburg, Germany.—Plans are asked of German architects by the Royal Prussian State Railways Commission until Dec. 20 for a new terminal station for Hamburg. The first prize will be 12,000 M.

BRIDGES.—Crete.—Reports state that the Cretean government at Constantinople, Turkey, will want bids in October for furnishing the materials and for erecting five iron and steel bridges, ranging from 40 to 150 meters in length.

STEAM TRAMWAYS.—Barcelona, Spain.—Bids are asked by the authorities at Madrid until Oct 2 for the purchase of a concession for building and operating a steam tramway between Badalona and Masnon (Barcelona) for 60 years.

POWER PLANT.—Barron Falls, Queensland.—The question of regranting a 50-year franchise to the Chillagoe Ry. & Mines Co. to build a power plant at Barron Falls is being considered. The plant will generate 75,000 HP., and will cost about $750,000.

BRIDGE.—Trancaspian Ry., Russia.—The government is reported to have decided to build a steel or iron bridge, about a mile long, over the River Anur-Daria (Bokhara) for the Transcaspian Ry.; estimated cost, about 5,000,000 roubles. Col. V. F. Kanabich, Gen. Mgr., Aschabad.

DWELLINGS.—Dublin, Ireland.—Reports state that Baron Iveagh, Kildare St., Dublin, has decided to demolish the buildings in the St. Patrick tenement house district and build new artisan dwellings thereon, at a cost of about $500,000.——C. Wall, of Chelsea, London, has been awarded the contract, at $210,000, for public baths and wash-houses for Fulham, London.

DIAMOND MINES.—Demerara, British Guiana.—U. S. Consul G. T. Moulton reports that Conrad & Gilkes, of Demerara, have been granted a concession to mine for diamonds on 2,000 acres of land on the Mazaruni River. Other parties are considering the matter of securing concessions.

ELECTRIC RAILWAY.—Santiago de Chili.—Reports state that the Chilian Electric Tramway & Light Co., Ltd., proposes to extend and improve its 42 miles of horse-car lines. The road will be equipped with electricity, and a 50,000-H.P. water-power plant built on the River Maipu. P. Merry del Val, Mgr., Santiago.

ELECTRIC TRAMWAYS.—London, Eng.—The London County Council proposes to ask Parliament for authority to build 28½ miles of new double track electric tramways, to cost with car-sheds, etc., about $9,000,000. Other tramway work is also proposed. Sir J. B. Monckton, Town Clk.; Alfred Baker, Tramway Mgr.

PUBLIC LIGHTING.—Rio de Janeiro, Brazil.—Reports state that the Societe Anonyme du Gaz de Rio de Janeiro, a Belgian company, has secured an extension to its concession for lighting this city with electricity until 1915 and with gas until 1940. It is said that additional machinery will be wanted at once.

BOILERS, PUMP, ETC.—London, Eng.—Bids are asked until Sept. 22 for furnishing and installing boilers, engines, dynamos, water-softening plant, etc., at the asylum on the Horton estate, Epsom, Surrey. R. W. Partridge, Clk. Asylums Com., London County Council, 6 Waterloo Pl., London, S. W.

RAILWAY WORK.—England.—Bids are asked by H. L. Halford, 37 Nevern Sq., London, N. S., for building a gradient railway, and until Sept. 1 by Edward Challinor, Secy. Leek & Manifold Valley Light Ry. Co., Leek, Eng., for over 8 miles of narrow gage road. Bids were received by G. K. Mills, Secy. Great Western Ry., Paddington Station, London, Aug. 7, for building five miles of road.

TELEPHONE SYSTEMS.—St. Petersburg, Russia.—Reports state that bids are wanted at once for improving and extending the telephone systems in St. Petersburg, Odessa, Moscow, Riga and Warsaw. The present systems, owned by the Bell Telephone Co., of New York, will be transferred to the Russian government Nov. 1, 1901. Address Chief Royal Administration Posts and Telegraphs, St. Petersburg.

FLOUR MILLS.—Para, Brazil.—U. S. Consul Kenneday, Para, reports that foreign capitalists are making efforts to build a large flour mill at Para. The Para & Amazon Valley Milling Co. has also been formed by Europeans to build a flour mill, a saw mill and a sugar mill, combined. The machinery will be purchased in the United States. Dr. Bolhona, of the company, will visit America to complete arrangements.

ELECTRIC RAILWAYS.—Insterburg, Prussia, Germany.—The Insterburg St. Ry. Co. has been incorporated with a capital of 8,244,000 marks, to build the following electric railways, it having secured 75-year franchises: Insterburg to Trempen, branch to Lindenhof; Insterburg over Kraupischken to Ragnit; Insterburg to Skaisgirren, branch to Piplin; Insterburg to Gross-Britannuen, branch to Seckenburg, and others.

MOUNTAIN RAILWAY.—Switzerland.—It is stated that Saturnin Fabre has submitted plans for a railway to about the summit of Mont Blanc, Switzerland, to the University of Lyons, France. The line is proposed to begin at Chamonix, the upper half will be through tunnels. Part of the grade will be about 60%.——The authorities of Berne, Switzerland, have ordered an extension to the electric line, according to reports.

TELEPHONE EXCHANGES.—Budapest, Austria.—Bids are asked by the Royal Hungarian Direction of Telephones until Oct. 15 for furnishing the materials and equipping two telephone systems. The local telephone will consist of 10,000 subscribers at first, later to be increased to 20,000. Deposit required, 60,000 crowns. A program of work and conditions may be secured from the Austrian-Hungarian General Consulate, 33 Broadway, New York.

WATER-WORKS AND SEWERAGE.—Constantinople, Turkey.—It is stated that the Sultan has issued an irade authorizing the city to build new water-works and sewerage, to be constructed at the expense of the Imperial Civil List. The improvements will require the purchase of pumping machinery and of all necessary material, including 4,200 m. of cast iron pipe, diameter 300 mm., and 1,200 m. pipe, diameter 220 mm., and 6,300 m. pipe, diameter of 250 mm. All these pipes are to have a power of resistance of 15 atmospheres of pressure. There will also be required 2,300 m. of pipe of a diameter of 225 mm., able to resist a pressure of 25 atmospheres.

ELECTRIC TRAMWAY.—Sydney, N. S. W.—Press reports state as follows: The steam and cable tramway system is being converted into electric power, and the equipment will be purchased in the United States. Estimated cost about $2,500,000. The General Electric Co., New York, recently secured contracts of over $225,000, and it has just been decided that the same concern will fill the contract for the complete installation of the main generating station, to cost $800,000. The existing power-house is equipped with General Electric generators and Allis horizontal engines. This machinery will be removed to the new plant, which is to generate 6,800 HP.

RAILWAY WORK.—Victoria, Australia.—The government has granted a London syndicate permission to build a narrow gage railway from Cunningham to Mount Deddick, about 94 miles, at a cost of $1,500,000. Work to be completed in 2½ years. Railway work now in progess in Victoria, together with those which the government is pledged to undertake immediately, will cost $5,000,000. This includes the new central station, to cost about $550,000. F. Rennick, Engr.-in-Ch., Melbourne.——Cecil A. H. Palmer, mechanical inspector of the engineer-in-chief's office, Brisbane, Queensland, has been granted leave to enable him to visit Europe and America. Mr. Palmer will also undertake some commissions in connection with the probable purchase of railway plant.——It is stated that A. Mathieson, Traffic Inspector of Rys., Melbourne, will soon visit the United States to inquire into the working of grain elevator systems. The question of building grain elevators in the colonies is being considered.

RAILWAYS, POWER PLANTS, DOCKS, ETC.—Paraguay.—The Paraguay Development Co., 257 So. 4th St., Philadelphia, Pa., has been incorporated in New Jersey, with a capital of $500,000. The company proposes to open up and develop the natural resources of Paraguay, conduct explorations, engage in mining, establish, lease or operate steamship lines, promote immigration, obtain and develop concessions, provide harbor works, docks, water-works, railways, sewers and electric and other lighting plants, etc. The organization of this company is largely due to the fact that Paraguay was officially represented by Chas. R. Santos at the recent International Congress in Philadelphia. One proposed branch is the Paraguay Textile Co. An American capitalist will shortly go to Para-

guay to arrange for lighting Asuncion, the capital, and for building its trolley line. The proposed improvement of the harbor of Asuncion will be placed in the hands of another company. There are eight or ten other important matters which will shortly command attention. Among these is the construction of a railroad.

CONTRACT PRICES.

WATER METERS.—Cleveland, O.—The following bids were received Aug. 11 for furnishing water meters, with connections, for the year 1900; W. P. Rice, Dir. Dept. Pub. Wks.; J. C. Beardsley, Second Asst. Engr.:

Bids Received at Cleveland, O., Aug. 11, 1900, for Furnishing Water Meters.

Quantities.	Henry R. Worthington. Class 3, old style.	Henry R. Worthington. Class 1 & 2.	National Meter Co. Crown.	National Meter Co. Empire.	Hersey Mfg. Co. Rotary.	Hersey Mfg. Co. Torrent.	Neptune Meter Co. Trident.	National Meter Co.*	Hersey Mfg. Co.* (patterns). Simplex.	Hersey Mfg. Co.* (patterns). Cross-way.	Hersey Mfg. Co.* (patterns). Pott.	Neptune Meter Co.*
¾-in. meter ...200 each.	$18.75	$17.20	$21.75	$15.75	$19.75	.....	$14.25	$5.00	$0.75	$2.00	.....	.....
1-in. " ... 50 "	29.00	25.35	31.00	21.00	27.00	.....	19.00	5.00	1.00	4.00	.....	.....
1½-in. " ... 40 "	37.50	30.00	50.00	40.00	45.00	.....	35.00	6.00	....	6.00	.....	.....
2-in. " ... 35 "	44.50	37.50	65.00	60.00	65.00	$45.00	55.00	6.00	....	6.00	.....	.....
3-in. " ... 5 "	96.75	84.50	135.00	100.00	125.00	90.00	95.00	10.00	....	....	$10.00	$10.00
4-in. " ... 5 "	247.50	243.75	250.00	225.00	250.00	175.00	200.00	15.00	....	....	15.00	15.00
6-in. " ... 1 "	495.00	495.00	500.00	400.00	500.00	400.00	400.00	20.00	....	....	20.00	20.00
Total	$10,474	$9,356	$12,600	$9,925	$11,750	.....	$9,000	$1,845	....	....	.....	.....

*These bids are for fish traps.

BRICK PAVING.—Atchison, Kan.—The following bids were received June 4, 1900, for brick paving, etc., in Santa Fe St., on 3-in. sand foundation; curbing to be artificial stone, 6½ x 20 ins.; (1) bid of T. Beattie, (2) J. H. Barry, (3) Atchison S. & C. Co., (4) L. Wines; Mr. Beattie's bid was accepted; Fred. Giddings, Cy. Engr.:

		1.	2.	3.	4.
Excavation ...	16,650 cu. yds.	$0.24	$0.25	$0.24¾	.....
Curbing	9,835 lin. ft..	.48	.48	.47⅞	$0.49
Resetting ..	480 " "	.15	.15	.15	.15
Paving	15,492 sq. yds.	.89½	.90	.88⅞	...
Catchbasins ..	5 each...	15.00	17.00	27.50	18.00
Resetting ..	4 " ...	10.00	8.00	7.50	10.00
18-in. "	115 lin. ft..	.75	.70	.63	...
15-in. "	100 " "	.55	.65	.45	.60
12-in. "	50 " "	.50	.50	.35	.52
Bridge plates.	7,350 lbs.....	.02	.02	.03½	.02
Sub-grading ..	1,734 cu. yds.	.28	.30	.32½	...
Oak plank ...	1,000 ft. B.M.	28.00	30.00	25.50	...
Flushpipe cvr.	1.....	5.00	5.00	3.50	...
Brk sidewalk.	4,054 sq. ft...	.06	.06½	.06½	...
Relaying ...	19,110 " "	.02	.02½	.01¾	...
Total		$24,228	$24,629	$24,283	.....

SEWER.—Middletown, O.—The following bids were received Aug. 6, 1900, for a sewer in Main St.: (1) John Arpp, Middletown, O; (2) Owen Carney, Middletown (accepted); (3) W. H. Louthan, Hamilton, O.; (4) John Munger & Bro., Dayton, O.; Frank Doty, Cy. Engr.:

		1.	2.	3.	4.
18-in. pipe ...	1,155 lin. ft..	$0.50	$0.49	$0.52	$0.47
12-in. " ...	180 " "	.25	.23	.27	.25
6-in. " ...	1,175 " "	.12	.12	.11	.12
Trenching:					
0 to 6 ft...	35 " "	.32	.13	.20	.20
6 " 8 " ..	200 " "	.30	.30	.35	.30
8 " 10 " ..	900 " "	.40	.37	.50	.45
10 " 12 " ..	850 " "	.65	.40	.60	.60
12 " 14 " ..	475 " "	.75	.55	.75	.77
14 " 16 " ..	50 " "	.95	.75	.90	1.00
Repair'g asphlt	10 cu. yds.	25.00	27.50	20.00	30.00
Manholes	2 each...	25.00	28.00	30.00	30.00
Repairs to old..	.....	4.00	5.00	10.00	5.00
Inlet basins ..	6 each...	12.00	15.00	25.00	13.00
Lumber	5 M. ft...	20.00	.02	20.00	20.00
Total		$2,398	$1,963	$2,559	$2,400

BRICK PAVING.—Gallipolis, O.—The following bids were received Aug. 16 for 25,160 yds. of brick paving; the contract was let to Beeson Bros., for either Athens, Wassall or Trimble paving block; 68 cts. was bid for Portland cement combined curb and gutter; J. R. C. Brown, Engr.-in-Charge; T. E. Bradbury, Clk.:

Bids Received at Gallipolis, O., Aug. 16, 1900, for Brick Paving.

Quantities.	Beeson Bros., Middleport.	Samuel Monroe, Portsmouth.	H. P. Streicher, Toledo.	John F. Welch, Nelsonville.	Maloney & Betz, Gallipolis.	James A. Kelley, Portsmouth.	Geo. Prutsman, Paris, Ill.	J. D. Sullivan, Columbus.	A. G. Pugh, Columbus.
Excavtn, fndatn & paving..25,160 sq. yds.	$0.94	$0.94	$0.97	$0.91	$0.97	$0.98	$1.01	$1.02	$1.045
Berea curb in place.....10,600 lin. ft..	.39	.40	.40	.45	.44	.45	.42	.415	.425
Circular curb, in place.. 970 " "	.73	.70	.82	.90	.69	.85	.75	.70	.60
Furnishing and laying:									
20-in. sewer pipe ..... 500 " "	.57	.59	.60	.78	.60	.53	.50	.56	.54
18-in. " " ..... 1,350 " "	.46	.44	.55	.65	.47	.44	.40	.53	.45
12-in. " " ..... 1,200 " "	.33	.26	.45	.39	.29	.23	.25	.26	.25
10-in. " " ..... 300 " "	.22	.20	.40	.35	.25	.20	.21	.23	.23
Manholes, 7 ft. deep or less 7 each...	18.00	20.00	20.00	21.00	22.00	23.00	18.50	22.00	24.00
Duplex inlets, in place..... 32 " ...	19.00	24.00	12.00	21.00	18.00	24.00	18.00	14.00	15.00
4-in. drain tile, per 100 ft..12,000 lin. ft..	3.20	4.50	.04	6.00	2.00	.06	4.00	5.75	6.50
Trenching and filling:									
For 18 and 20-in. pipe.. 1,850 lin. ft..	.26	.30	.30	.29	.35	.35	.20	.23	.27
For 10 and 12-in. pipe.. 1,500 " "	.17	.20	.30	.29	.22	.25	.18	.21	.22
Total	$31,715	$32,133	$32,677	$32,980	$33,044	$33,394	$33,570	$34,150	$34,883

DREDGING.—Portsmouth, N. H.—The following bids were received by Maj. W. L. Fisk, U. S. Engr., Aug. 16, 1900, for dredging in the Merrimac River. (1) Dredging, per cu. yd.; (2) removing boulders greater than 3 tons in weight, per cu. yd.:

	1.	2.
R. B. Rodermond, 25 Pine St., New York..	$0.49½	$10.00
Harries & Letteney, 1014 Tremont Bldg., Boston.....	.73	15.00
Eastern Dredging Co, 25 Congress St., Boston.....	.53¾	5.00

WATER PIPE.—Marquette, Mich.—The Gillette-Herzog Mfg. Co., Minneapolis, Minn., has been awarded the contract at $6.99 a ft. for about 600 ft. of 42-in. cast-iron conduit, connections, etc., for the proposed intake; total, $5,180. The Muskegon Boiler Works, Muskegon, Mich., bid a total of $5,188, and the T. A. Gillespie Co., Pittsburg, Pa., $5,258.

DREDGING.—Chatham Harbor, Mass.—Col. Chas. R. Suter, U. S. Engr., Boston, received the following bids Aug. 11, 1900, for dredging Chatham Harbor. (1) Dredging per cu. yd. measured in scows; (2) removing boulders over 3 tons each per cu. yd:

	1.	2.
Charles H. Souther, Boston, Mass.....	69½ cts.	$6.00
Augustus B. Martin, Boston.....	59½ "	8.00
R. B. Rodermond, New York, N. Y.....	32 "	10.00

PAVING.—Hamilton, O.—The following bids were received Aug. 10, 1900, for paving in several streets: Block asphalt, J. M. Quill, $2.30 per sq. yd.; W. N. Andrews, $2.28. Sheet asphalt, David Folz Asphalt Co, Cincinnati, $2.24; Ayres Asphalt Co., Zanesville, $2.17; Warren-Scharf Asphalt Paving Co., Dayton, $2.17 and $2.28; Barbour Asphalt Paving Co., Cincinnati, $2.21. Vitrified brick, J. M. Quill, $1.72; W. N. Andrews, $1.68 per sq. yd.

DREDGING.—Brooklyn, N. Y.—The N. Y. Dredging Co. submitted the only bid Aug. 8, 1900, for dredging 2[illegible],000 yds. in the Gowanus Canal at 25 cts.——J. J. Kane & Co. has been awarded the contract at $1.68½ a bbl. for 1,000 bbls. of Portland cement.

BRICK PAVING.—Albany, N. Y.—The following bids were received last week for brick paving in Third St.:

Make of brick—	Frank Pidgeon.	Ed. F. Dillon.	Mulderry Bros.
Johnsonburg Paving Co.....	$1.87	$1.85	$1.78
Mack Paving Brick Co.....	2.16	...	2.08
McMahon & Porter Co.....	2.14	2.15	2.08
N. Y. Brick Co.....	2.25	2.25	2.08
Shale Brick Ex.....	2.25	2.30	2.05
Eastern Brick Co.....	2.25	1.95	1.78

WATER PIPE, CASTINGS, ETC.—Washington, D. C.—Thomas Ryan, Acting Secy. Dept. Interior, received the following bids Aug. 10 for water pipe, castings, etc., for completing the works at government hospital for the insane, near Washington:

Bids Received at Washington, D.C., Aug. 10, 1900, for Water Pipe, Castings, Etc.

Bidder.	Cast-iron Water pipe, a ton.*	Cast-iron Spec'l castings, a lb.	Cast-iron Stop-b'x's, each.	Stop valves, 10", each.	Stop valves, 8-in., each.	Stop valves, 6-in., each.	Stop valves, 4-in., each.	4-in. fire hydrants each.	Pipe laying, a ft. 12-in.	Pipe laying, a ft. 10-in.	Pipe laying, a ft. 8-in.	Pipe laying, a ft. 6-in.	Pipe laying, a ft. 4-in.
Brennan Const'n Co., Washington.....	$25.50	$0.03	$3.00	$25.00	$18.00	$13.00	$9.00	$25.00	$0.45	$0.41	$0.33	$0.30	$0.30
S. M. Neff, 120 Liberty St., New York.	22.50	.025	2.25	21.00	15.00	10.25	6.00	22.00	.44	.34	.30	.28	.25
M. F. McNamara, Washington.....	.....	...	....	.....	.....	.....	....	....	.54	.43	.40	.41	.36
Cuyler & Mohler, Baltimore, Md.....	23.15	.024	3.90	27.25	18.75	11.50	7.05	21.50	...	...	...	...	...
Burdie Co., Inc., 515 Arch St., Phila...	25.00	.024	3.50	27.00	19.00	13.00	7.80	24.50	.21	.19	.17	.15	.13
G. M. Newhall Engineering Co., Phila..	24.50	.022	2.50	21.00	16.00	11.00	7.00	22.00	1.04	.964	.904	.883	.83
Eddy Valve Co., Waterford, N. Y.....	.....	...	3.00	23.75	17.75	11.75	7.25	22.50	..	...	...	...	...
M. J. Drummond & Co., 193 B'way, N.Y.	22.48	.023	2.25	21.00	15.00	10.25	7.00	22.00	...	...	...	...	...
Sweet & Doyle, Cohoes, N. Y.....	.....	...	3.00	22.11	16.58	9.82	6.38	.....	...	...	...	...	...

*Ton of 2,000 lbs.

BRICK PAVING.—Lawrence, Kan.—The contract for paving a portion of Massachusetts St. (principal business) 20 ft. along center, which was to be roadbed of Kansas City, Lawrence & Topeka Ry. (electric, franchise repealed, broken stone foundation to be taken up), was let to Hanley & Co., of Topeka, Kan., at $1.34½ per sq. yd. for vitrified brick on 6-in. concrete. This, with contract of O. C. Chapin, awarded some 8 months ago, puts half a mile of street under contract. A third of a mile more of same street will soon be ready for bids. One block, 600 ft. on Louisiana St., is open for bids, two-course brick on sand.——Eight blocks on Tennessee St. have ordinance on first reading, with fair prospect of passing. Holland Wheeler, Cy. Engr.

ASPHALT PAVING.—Cincinnati, O.—The Trinidad Asphalt Paving Co. submitted the lowest bid Aug. 14, 1900, for asphalt paving in Bruce Ave., at $1.80 a yd.; total, $10.019.

SEWERS AND PAVING.—Huntington, Ind.—The following contracts were let Aug. 14, 1900, for constructing sewers and brick paving: Fisher, Keefer & Bailey—Paving Guilford, Tipton and Court Sts., Berea stone, Cleveland, O., straight curb, 45 cts. a lin. ft.; circular, 75 cts.; Athens brick block, $1.30½ a sq. yd.; excavation, 25 cts. a cu. yd. Other bidders for this work were Moelering, Fort Wayne; and Hipskind, Wabash. Fisher, Keefer & Bailey were also awarded contract for State St.: 30-in. pipe (2½ ins.), $5.07½ a lin. ft.; 24-in., $5.07½; 30-in. (2½ ins.), $4.97½. Other bidders for this contract were Hipskind of Wabash, and J. B. Williams, of Huntington. The contract for improvement of Randolph St. was awarded Fisher, Keefer & Bailey, with Berea (Cleveland) stone, straight-cut curb at 45 cts. a lin. ft.; circular curb, 80 cts.; surface between curb, 52 cts.; excavation, 20 cts. a yd. Martin Koch was the lowest bidder for constructing two bridges over Rabbit Run—one at Hasty St. and the other on Walnut St.: Excavation, 28 cts. a cu. yd.; masonry, $4 a yd.; wood work, Walnut St. bridge, $27; same for Hasty St. bridge, $25.

VALVES, WATER-PIPE, ETC.—Washington, D.C.—The following bids were received Aug. 16, 1900, by Lieut.-Col. A. M. Miller, U. S. Engr., Washington Aqueduct, for furnishing valves, water pipe, etc., as advertised in Engineering News; (1) being for 45 sluice gates, complete, with raising machinery, each; (2) two valves, extra heavy, complete, with raising machinery, each; (3) eight valves, complete, with raising machinery, each; (4) 2,440 ft. of 48-in. cast-iron water pipe, per gross ton; special castings for (5) Rock Creek shaft, (6) Champlain Ave. shaft, (7) east shaft, (8) west shaft: Kennedy Valve Mfg. Co., 50 Beekman St., New York, (1) $695, (2) $795, (3) $818; North Penn Iron Co., North Penn Junction, Philadelphia, (1) $524.61; Rensselaer Mfg. Co., Troy, N. Y., (2) double stem, $1,000; single stem, $879; (3) double stem, $830; single stem, $740; light valve, double stem, $750; light valve, single stem, $695; U. S. Cast-Iron Pipe & Foundry Co., Philadelphia, (4) $24, (5) $6,330, (6) $1,012.50, (7) $4,612.50, (8) $1,612.50; Camden Iron Works, 400 Chestnut St., Philadelphia, (1) $985, (2) $1,975, (3) $1,980, (4) $25.55, (5) $5,550, (6) $1,200, (7) $6,200, (8) $1,540; Griffin Valve Mfg. Co., Dorchester, Mass., (1) aqueduct drawings, $795; company's drawings, $390 and $521; (2) double screw, $1,123; single screw, $1,025; (3) single screw, $810; Caldwell-Wilcox Co., Newburg, N. Y., (1) aqueduct specifications, $725; Wilson type, $695; (2) $1,300, (3) $1,175; Frank W. Dilks & Co., 328 North Calvert St., Baltimore, Md., (1) $1,010.73, (2) $1,340, (3) $1,115; Mohawk & Hudson Mfg. Co., Waterford, N. Y., (1) $685, (2) $1,050, (3) $575; Ellicott Machine Co., Builders' Exchange, Baltimore, (1) $953.

MAIN SEWER.—Crawfordsville, Ind.—The contract for furnishing the materials and for constructing a main sewer has been let to J. M. Waugh and Irve Buchanan as follows: 6,000 ft. 18-in., 40 cts.; 500 ft. 12-in., 20 cts., 4,000 ft. 10-in., 14 cts.; 6,500 ft. 8-in., 10 cts.; 1,000 ft. 6-in., pipe, 6 cts.; 200 pieces 18 x 6-in. Y-branches, $1.55; 10 pieces 12 x 6-in. Y-branch, 80 cts.; 250 pieces, 10 x 6-in. Y-branch, 60 cts.; 250 pieces, 8 x 6-in. Y-branch, 40 cts.; 150 ft. 10-in. cast iron pipe, $1.50; 50 ft. 8-in. cast iron pipe, $1.20; 18 cu. yds. masonry bulkhead, $7,00; 75 manholes, complete, each $25.00; 3 flush tanks, each 500 gallons capacity, each $60.00. Excavating, laying, cementing and refilling: 6,400 ft. 18-in. pipe, average depth 8½ ft., 40 cts.; 520 ft. 12-in. pipe, average depth 9 ft., 40 cts.; 4,500 ft. 10-in. pipe, average depth 10 ft., 40 cts.; 7,000 ft. 8-in. pipe, average depth 8 ft., 25 cts.; 1,000 ft. 6-in. pipe, average depth 9 ft., 25 cts.; total, $13,372.

BRICK PAVING.—Davenport, Ia.—The Flick & Johnson Construction Co. has been awarded the contract for brick paving in certain streets as follows: Excavating, 35 and 38 cts.; paving, $1.39; curbing, 40 cts.; macadamizing, 90 cts., and $1.01. The other bids were as follows: D. A. McGugin, excavating, 35 cts, paving $1.41, curbing 40 cts.; Tri-City Construction Co., excavating 36 cts., paving $1.46, curbing 41 cts.; Walsh Construction Co., excavating 37 cts., paving $1.40, curbing 41 cts.

INDUSTRIAL NOTES.

THE EDWARD P. ALLIS CO., Milwaukee, announces that on Sept. 1 it will discontinue its office at Butte, Mont., and establish a branch office at Spokane, Wash., 110 Mill St., in charge of Mr. H. V. Croll.

THE NEW YORK FILTER MFG. CO., 15 Broad St., New York, has closed a contract with Joseph Wescott & Son, to construct for the East Albany Water Co. a filtration plant at Rensselaer, N. Y., of 3,000,000 gallons daily capacity.

THE AMERICAN BRIDGE CO., New York, has a contract for 27 bridges for the Hokaido R. R., and 8 for the Taiwai R. R., Japan. The contracts are said to aggregate about $500,000, and to have been placed through English engineers and Japanese railway officials.

THE NATIONAL ELASTIC NUT CO., Milwaukee, reports that it has found such a large demand for bolts in connection with the sale of its elastic nuts that it has decided to add a bolt plant to its factory. It has ordered from the Acme Machinery Co., Cleveland, O., two headers and four threading machines, which are expected to be in operation by September.

THE RICHMOND LOCOMOTIVE & MACHINE WORKS, of Richmond, Va., have an order for ten consolidation locomotives for the Intercolonial Ry. of Canada. Five of these will be two-cylinder compounds, with cylinders 22½ x 30 ins., and 35 x 30 ins. All will have 56-in. driving wheels, and straight-top boilers, 5 ft. 6 ins. diameter at the smokebox end, carrying 200 lbs. of steam pressure. The weight in working order will be 184,000 lbs., with 147,000 lbs. on the driving wheels.

THE NEW ENGLAND STRUCTURAL CO., Boston, has signed a contract from the Edison Electric Illuminating Co. of Boston, for a coal pocket and trestle on Atlantic Ave., that city. It will be 246 ft. long, 43 ft. high, and 22 ft. wide, with a coal pocket capacity of 1,500 tons. The company has also a contract for two bridges for the Boston & Maine R. R., one at East Somerville and one at East Hadley, Mass.; also the contract for furnishing the steel frame work for the Ward Five school house in Lawrence, Mass.

THE INTERNATIONAL SEWAGE DISPOSAL CO., 1026 Tremont Bldg., Boston, Mass., was recently incorporated in Maine with a capital stock of $1,000,000, and claims to have a new method of sewage disposal for cities, towns and public institutions. It has a plant in operation at Revere, Mass. The directors of the company are John E. Stanton, Pres.; John H. Crandon, Vice-Pres.; Chas. A. Walker Gen. Mgr.; Pierce Powers, Treas.; John Q. A. Brackett, Wm. C. Cotton, Joseph H. O'Neil, J. C. Spillane, and G. D. Mitchell.

BETHLEHEM STEEL CO., South Bethlehem, Pa., announces that among recent orders are spare propeller-shafts for the steamers "Ponce" and "San Juan" of the New York & Porto Rico Line, which are being furnished to Harlan & Hollingsworth Co., of Wilmington, Del. The company is also supplying eight forged hollow shafts of fluid-compressed open-hearth steel for use in Cuban sugar mills, and, in addition to these, is making a large number of gun barrels of Bethlehem nickel-steel for the Winchester Repeating Arms Co. and Colt's Patent Fire Arms Co.

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